The effectiveness of a Group Theraplay and Sunshine Circles intervention on reducing behavioural difficulties resulting from early Complex Trauma

By

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Abstract

Complex Trauma (CT) has been shown to have significant effects on an individual's physical and emotional well-being, with these effects being particularly evident if the trauma exposure occurred during early development. Research on CT and its related effects have increased in popularity over the last few years with researchers, practitioners and diagnostic manuals having difficulty differentiating between the various definitions of trauma. Despite this uncertainty, the majority of research agrees that interventions should use a trauma informed approach which uses recommendations from attachment theory, neuroscience and developmental science. Group Theraplay (GT) and Sunshine Circles (SC) are two examples of interventions which use these approaches. This study investigates whether GT and SC are effective in reducing negative behaviours, as measured by the Strengths and Difficulties Questionnaire (SDQ), in a small sample of children who have experienced CT.

Six children aged between 8 and13 years participated in up to 10 GT sessions over two weeks with four of these children also receiving at least two SC sessions in addition to GT. The findings of this study indicated that all children showed an improvement in at least one domain measured by the SDQ but only one child with post-intervention data showed an improvement in their total difficulties scores. Similarly, the Assessment of Child Progress (ACP) measure indicated a reduction in negative behaviours for three of the six children from the initial session to the final session of GT. When comparisons were made between children who received GT and SC and GT only, receiving a combination of both SC and GT had a greater positive effect on children's behaviours. This study provides some support for an alternative evidence-based intervention that can be accessed by many clinical and non-clinical organisations at low risk and cost to reduce behavioural problems in children with CT. The feasibility of using GT and SC within New Zealand has been evaluated and shows potential for promising results when minor alterations, based on the limitations of this study are made.

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Abbreviations

ACE – Adverse Childhood Experiences

ACP – Assessment of Child Progress

ADHD – Attention Deficit Hyperactivity Disorder

ARC – Attachment, Self-regulation and Competency

CBCL – Child Behaviour Check List

CBT – Cognitive Behavioural Therapy

CPP – Child-Parent Psychotherapy

C-PTSD – Complex Post Traumatic Stress Disorder

CT – Complex Trauma

DSM – Diagnostic and Statistical Manual

DTD – Developmental Trauma Disorder

GT – Group Theraplay

ICD - International Classification of Diseases

ITCT-C – Integrative Treatment of Complex Trauma with Children

NCTSN – National Child Traumatic Stress Network

ODD – Oppositional Defiant Disorder

PHV - Psychoeducation Home Visitation

PPP – Preschool-Parent Psychotherapy

PTSD – Post Traumatic Stress Disorder

SC – Sunshine Circles

SDQ – Strengths and Difficulties Questionnaire

TF-CBT – Trauma-Focused Cognitive Behavioural Therapy

Chapter One Introduction

It is well known that young children's social and emotional development has a significant influence on their future inter- and intra-personal experiences. The development of inter-personal skills such as problem solving and communication and intra-personal skills such as self-regulation contribute to a child's ability to develop relationships with people and can have an effect on their cognitive adjustment and psychological wellbeing later in life (Tucker, Schieffer, Wills, Hull, & Murphy, 2017). Adverse childhood experiences (ACES) such as exposure to poverty, parental mental illness, neglect and abuse (Barch, Belden, Tillman, Whalen, & Luby, 2018) can interrupt the development of these skills, leading to negative outcomes for the child. The impact of these experiences has been shown to have a significant effect on multiple outcomes across the life span and with the majority of ACES having a traumatic effect on the individual (Felitti et al., 1998).

Despite epidemiologic studies showing findings that approximately 66% of the general population have experienced at least one of the ACES, many show great resiliency and do not go on to experience further symptoms (Furr, Comer, Villodas, Poznanski, & Gurwitch, 2018). However, there is still a small percentage of people that go on to experience negative outcomes associated with exposure to this trauma in early childhood. In particular, if a child has experienced multiple or prolonged traumas such as ongoing abuse or continuous natural disasters (e.g. earthquakes), the likelihood of experiencing negative outcomes increases. Although these experiences are measured in the ACE questionnaires, if the trauma is multiple and/or prolonged, they are often described as Complex trauma. Differences are also noted between isolated incidents of trauma which often produce specific responses which can be measured in the Post-Traumatic Stress Disorder (PTSD) diagnosis.

Complex Trauma: Definition

The diagnostic criteria used to define childhood trauma is a controversial topic, with many researchers and practitioners having difficulty differentiating between the subtypes of developmental, attachment or complex trauma (Wilson, Hansen, & Li, 2011). Table 1 lists the four most common definitions of trauma described in the literature, each relating to either developmental trauma, complex trauma (CT), or attachment trauma. It is important to acknowledge the similarities and differences between each of these definitions. Each of the

subtypes include an interpersonal aspect indicating that the trauma has occurred between two or more people such as a caregiver and their child. The subtypes also differ in that not all the definitions ('complex trauma') state the traumas occurred in childhood thus creating potential confusion when using the word in the literature. Despite these three subtypes of trauma being documented in the literature and described in the Diagnostic and Statistical Manual of Mental Disorders (DSM), developmental trauma and complex trauma are often used interchangeably, most commonly to describe events of abuse and neglect.

As shown in definitions one to four in table 1, one of the core aspects of CT is the ongoing and repetitive nature of the trauma. Regardless of the type of trauma definition, the continuous experience and inability to escape is shown to be disruptive in all circumstances. Although all four of the examples shown in table 1 mention an interpersonal aspect, complex trauma has also been shown to be evident in relation to non-interpersonal situations such as experiencing extreme poverty, the impact of war, or natural disasters (De Bellis & Zisk, 2014). These situations are also separated from some of the definitions of complex trauma in that experiencing extreme poverty, enduring warzone environments and experiencing the impact of natural disasters do not necessarily relate to early childhood. Although, these and other definitions suggest that CT is a form of developmental trauma (van der Kolk et al., 2009), these experiences such as extreme poverty and natural disasters often share the same category of 'complex trauma'. This shared use of definitions results in a lack of consensus around the definition of trauma and this may subsequently impact our understanding of trauma, how it manifests during childhood, and the most appropriate interventions to use to prevent the ongoing negative effects of trauma.

Table 1 - Trauma Definitions

Name	Author	Definition
1. Developmental Trauma	van der Kolk et al. (2009)	Multiple or chronic exposure to one or more forms of developmentally adverse interpersonal trauma (abandonment, betrayal, physical assaults, sexual assaults, threats to bodily integrity, coercive practices, emotional abuse, witnessing violence and death).
2. Complex Developmental Trauma	van der Kolk (2005)	The experience of multiple, chronic and prolonged, developmentally adverse events, most often of an interpersonal nature, and early life onset.
3. Complex Trauma	(Blue Dot Foundation, 2018)	Usually interpersonal (occurs between people), and involves 'being or feeling' trapped. It is often planned, extreme, ongoing and/or repeated.
4. Attachment Trauma	Hooghe (2017)	Adverse interpersonal experiences, occurring in early childhood, which are repetitive, chronic and between child and caregiver or in a care-giving relationship.

The Diagnostic and Statistical Manual (5th Ed.) is used throughout the world by health practitioners as the trusted handbook to diagnose mental disorders (American Psychiatric Association, 2013). It provides common language known to clinicians and provides the criteria needed such as symptoms and descriptions to diagnose mental disorders (American Psychiatric Association, 2013). Currently, if an individual has experienced a traumatic event and has symptoms such as intrusive memories or persistent flashbacks, they may meet the criteria for a diagnosis of Post-Traumatic Stress Disorder (PTSD) (American Psychiatric Association, 2013). The DSM-5 defines PTSD as "exposure to actual or threatened death, serious injury, or sexual violence in one (or more) of the following ways: directly experiencing the traumatic event(s); witnessing, in person, the traumatic event(s) as it occurred to others; learning that the traumatic event(s) occurred to a close family member or close friend (in case of actual or threatened death of a family member or friend, the event(s) must have been violent or accidental); or experiencing repeated or extreme exposure to aversive details of the traumatic event(s)" (American Psychiatric Association, 2013, p. 271).

One of the limitations of the DSM criteria is that the individual needs to have experienced 'exposure to actual or threatened death'. Individuals who have experienced ongoing trauma such as abuse or neglect may not be recognised under the DSM, leading to inadequate or

inaccurate diagnosis and misguided or no treatment (Kaminer, Seedat, & Stein, 2005; Lindauer, 2012; van der Kolk, 2005). This has led some researchers (eg. van der Kolk et al., 2009) to argue for the inclusion of developmental trauma and its associated definition as a diagnosable category within the DSM.

Over the last two years, the 11th revision of the International Classification of Diseases (ICD-11) presented major changes to the diagnosis of PTSD to incorporate the complexity of trauma and provide more clarity around symptoms and diagnostic requirements. This revision resulted in a new diagnosis of Complex Post Traumatic Stress Disorder (C-PTSD). Although this new classification includes symptoms that align with the developmental trauma proposition such as disturbances in self-organisation and relationships, and negative self-concept (World Health Organisation, 2018), this diagnosis still includes the PTSD criteria. Therefore, despite C-PTSD providing a more inclusive diagnostic criteria and providing more clarity around overlapping symptom profiles, further researcher is likely to be conducted in order to provide a developmentally appropriate diagnostic criteria for the DSM as suggested by (van der Kolk, 2005).

Complex Trauma in Childhood

Recent literature highlights the negative effects that CT can have on children, if not correctly diagnosed or treated. Developmental aspects such as, cognition, emotion, relationships and physical health have been shown to be significantly affected by traumatic events.

Children that have experienced CT (multiple or prolonged traumas) are at greater risk of being trapped in a cycle of survival due to the consistency and repetitive nature of their trauma (McLaughlin et al., 2015). The ongoing belief that there is no beginning or end to their trauma results in individuals constantly experiencing and reexperiencing the same emotional response. These children who experience ongoing or multiple traumas, may be more likely to react with a fear response of either fight, flight or freeze (MacKinnon, 2012). This is due to the fact that their brain has been trained to expect threat at all times and therefore prepares to oppose (fight) or escape a situation (flight) (Thompson, Hannan, & Miron, 2014). Some children may also try to make themselves as still and unnoticeable as possible in order to avoid harm (freeze). This has been shown to be common in children that have failed to remain safe when using the fight or flight response (Perry, 2001). During the period of the trauma, if no protective factors are put in place to reduce this response, the child may develop the belief that their needs will not

be met by others. Examples of protective factors include supportive relationships and structure with clear boundaries. These can work to calm the child's fear response and retune important relationships. Thus, interventions and treatments should incorporate protective factors that promote attachment and nurturance and should be repetitive and consistent in nature. This focus on attachment will allow the child to have positive experiences and help provide the child with the core aspects of love and safety.

Middle childhood represents a developmental period when children are still developing critical social relationships and emotional skills (Coates & Gaensbauer, 2009). Children who have been exposed to early trauma may be experiencing difficulties in these domains and therefore are put at further risk of delaying important aspects of their development. It is necessary then to promote interventions that support children's use of these skills and competencies during this developmental period. Through early identification of the difficulties experienced by children that have experienced CT, interventions should focus on these developmental skills to reduce further segregation from children of typical development.

Child Wellbeing in Aotearoa New Zealand

Although there is few research articles showing the prevalence of mental illness for the New Zealand population, Te Rau Hinengaro found that 39.5% of the population has experienced a mental disorder at some point in their life (Wells et al., 2006). In addition, Global Health Metrics, (2017) has more recently shown New Zealand to have one of the highest rates of childhood sexual abuse in the world with research by Child, Youth and Family (now Oranga Tamariki) showing 7685 cases of emotional abuse, 3507 cases of physical abuse, 1066 cases of sexual abuse and 3700 cases of neglect in 2019 (Oranga Tamariki, 2019b). Despite ongoing education programs about child well-being and the importance of refraining from violent acts within the home, data from 2004 showed has shown that 80% of parents believed smacking their child should be legal, with 51% of parents reporting the use of physical discipline (Carswell, 2001).

In addition to the high levels of childhood abuse and mental illness amongst the New Zealand population, Canterbury in particular, has also been impacted by multiple large earthquakes. The 2010/2011 Canterbury earthquakes resulted in multiple deaths and physical and mental injuries. Individuals living within the Canterbury region at the time of the earthquakes were

shown to be 40% more likely to have a psychological disorder such as depression, anxiety or post-traumatic stress disorder (Fergusson, Horwood, Boden, & Mulder, 2014).

These natural disasters have been shown to have a negative effect on everyday life such as work, and relationships or caregiving roles (Dorahy et al., 2015) and can lead to disrupted psychosocial adaptation resulting in the inability to cope effectively with their changing circumstances (Fergusson et al., 2014). Research conducted immediately after the earthquakes showed an increase in behavioural issues for children which has also more recently occurred in research of children starting schools between 2015-2018 (Liberty, Macfarlane, Basu, Gage, & Allan, 2013). Interestingly, these children would have been between the ages of 0-3 at the time of the earthquake, supporting the ongoing literature that exposure to trauma in the first three years of life can have significant ongoing effects (van der Kolk, 2005). The Christchurch Health and Development Study also found that individuals that were exposed to the Canterbury earthquakes had a higher rate of mental disorders (anxiety, depression and PTSD) compared to those not exposed (Fergusson et al., 2014).

Although this exposure to natural disasters has been shown to result in physical and psychological effects for some individuals, Christchurch Women's Refuge (now Aviva) also reported an increase of requests for help relating to family violence after the Canterbury earthquakes (Shirlaw, 2014). This finding was also found by New Zealand Police (2015) with approximately 65% of Canterbury neighbourhoods experiencing an increase in family violence post-quake.

Recently, the New Zealand Government has identified the importance of child wellbeing and recognises the need to introduce a child wellbeing strategy to ensure that all children should be supported to enable them to reach their greatest potential. The underlying principles of the drafted strategy are recognised by New Zealand's commitments to the United Nations Convention on the Rights of the Child. With a focus on mitigating the effects of child poverty, the strategy aims to include multiple domains to ensure each aspect relating to this is addressed. The five domains, safety, security, connectedness, wellness and development overlap in many areas relating to the multiple aspects and influences of child wellbeing. Although the treatment of childhood trauma is not a specific goal, if at all mentioned in the strategy, the domains and overall goals discussed could potentially benefit children that have experienced CT, through the increase in research and acknowledgment throughout the country. By providing a unifying

framework, this national strategy insures that a collaborative approach is undertaken with the prioritised focus on child well-being. A family/child-focused approach was used during the creation of the framework to ensure that the framework focuses on what New Zealanders perceive to be important to achieve wellbeing in all aspects of their children's lives.

Rationale for Research

While numerous interventions have been shown to reduce traumatic symptoms and promote positive child development, the majority of these interventions are limited by the absence of symptoms that have been shown to occur as a result of CT in the first few years of life. Children who have experienced this trauma in their first three years are significantly more at risk of developing a disrupted attachment. Due to the vulnerability of children of this age, reliance on an adult caregiving figures are essential for survival. However, if these traumatic experiences are produced by these individuals, or protective factors are not put in to place by other caregiving figures, the child may not know who they can trust to keep them safe. This disrupted attachment in a child's development will often shape a person's behaviour throughout their adult life thus it is essential that interventions focused on rebuilding attachment are introduced as early as possible (Bowlby, 1958).

Research has shown that one of the most effective interventions for children exposed to CT involves therapeutic work with a focus on strengthening relationships between the child and a trusted adult (Arvidson et al., 2011). Common trauma-focused interventions have a strong psychoeducational focus on the effects of trauma and the trauma itself, however without focusing on the safety and attachments of these children, psychoeducational practices which require high cognitive abilities, may not be beneficial. Therefore, more therapeutic interventions focusing on attachment relationships, management of emotions and the feeling of safety is essential to allow the child to develop a sense of security and trust. This will then allow the child to more effectively process information and learn ways to cope and rebound from their traumatic experiences through more educational based interventions (Perry, 2006).

One Intervention which this study will focus on is Group Theraplay (GT) which incorporates all of these aspects shown to be beneficial to treating children with symptoms of CT. To the researcher's knowledge no research has been conducted using GT to support children who have experienced CT. In addition, no research on Theraplay has been conducted using a New

Zealand population. This evidence would provide important information for clinicians and health practitioners to make evidence based informed decisions about ways to reduce the effects of trauma and prevent future physical and emotional difficulties.

Research Aims

This study aims to deliver Group Theraplay sessions to children in middle childhood who have experienced CT to determine whether it is an effective intervention in promoting improved outcomes in the areas of pro-social behaviours, relationships, emotional regulation, attention or conduct. By collecting data using the Strengths and Difficulties Questionnaire (SDQ) both pre and post intervention, the behaviours and competencies of the participants will be recorded and analysed to identify the effectiveness of a Group Theraplay intervention. This study also aims to identify any differences between children who received GT and Sunshine Circles (SC) compared to children who received GT only.

Structure of Thesis

This study is organised into five chapters. Chapter two explores the effect of adverse childhood experiences and the identification of CT. This is shown by reviewing current literature that describes the outcomes associated with CT, interventions/supports that are currently available and definitions that are used within the literature and theoretical frameworks that support the research . The chapter concludes by providing a justification for the use of Group Theraplay as a brief intervention for children in middle childhood. Chapter three describes the methodology used for this study. This chapter also describes the participants of the study and the procedures used to recruit the participants. The design of the study is explained along with a description of the measures used to collect data and what the intervention and control groups entailed. Due to the nature of this study, a section explaining the ethical issues is also included. Chapter four displays the overall results from the SDQ measure and states the results from each subsection of the measure. Differences between the GT and GT/SC interventions will be displayed to support the discussion in the following chapter. The final chapter of this study provides a discussion of results from the two groups and ends with recommendations and views on future research.

Chapter Two Literature Review

Whilst there is a significant amount of research on CT, the constant developments in definitions, causes and interventions can be overwhelming and contradicting to current practices and diagnostic criteria. This chapter will review current research on CT and focus on similarities and common theories and aspects of CT shown in current literature. Throughout the review, gaps in the literature and areas of development will be identified to show the importance of a GT intervention and the importance of this intervention for middle childhood, in relation to CT.

Identification & Diagnosis of Complex Trauma

Posttraumatic Stress Disorder (PTSD) has caused controversy since it was first included as a diagnosis in the third edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-III) (American Psychiatric Association, 1980). The aim of the initial inclusion was to be able to describe the reactions that combat troops were experiencing on returning home from war (Courtois, 2008). However over the last few decades revisions of the DSM have resulted in significant changes to accommodate the complexity of trauma. The revisions for the most recent DSM-5 (American Psychiatric Association, 2013) took over six years of planning with extensive reviews of the literature and both public and professional views of the new criteria for PTSD (Pai, Suris, & North, 2017). One of the major flaws causing controversy in the DSM is the lack of diagnosis or criteria relating to CT. Although the DSM-5 included a more developmentally appropriate PTSD diagnosis for children 6 years and younger, the criteria still required the child to be exposed to an event that threatened death, serious injury or sexual violence (American Psychiatric Association, 2013). For children that have experienced ongoing abuse or neglect will generally not fit this criteria even if they have symptoms that would otherwise gain a diagnosis (van der Kolk, 2005).

Many researchers have identified that current clinical practices have difficulty in diagnosis when working with children that have experienced chronic trauma. It is often the case that these children will receive no diagnosis or inaccurate diagnosis which then leads to ill-judged treatment plans (van der Kolk, 2005). The Complex Trauma taskforce of the National Child Traumatic Stress Network (NCTSN) felt that a more precise diagnosis was needed for those children with more complex experiences and proposed a new diagnosis called ‘Developmental Trauma Disorder’ (DTD). The proposed criteria for a diagnosis of DTD is in line with research

around CT and its effect on the developing brain. The criteria is also closely aligned with the research regarding intervention and trauma-informed care which will be discussed in more detail in the interventions section.

In addition to the confusion between various definitions of CT, studies such as the Adverse Childhood Experiences (ACE) study (Felitti et al., 1998), have added a large amount of research involving early childhood events and trauma. Felitti et al. (1998), defined adverse childhood experiences (ACEs) as any form of emotional, physical or sexual abuse, emotional or physical neglect, living in a household where someone was an alcoholic, a drug user, mentally ill, suicidal, where the mother was treated violently or where a family member was imprisoned. The number of ACE described by an individual was indicative of the total amount of stress during childhood. Although some of the ACE's described can be seen as CT (e.g. If a child has experienced physical abuse over a prolonged period), the ACE study did not account for duration of the events and therefore the findings relating to outcomes of 'childhood trauma' may not be used interchangeably with experiences of CT. This is not made clear within the research with adverse childhood experiences being described as 'repeated traumas' (Zyromski et al., 2018) as well as 'potentially traumatic experiences' (Sacks & Murphey, 2018).

Theoretical Perspectives

The following theories provide a basis for the understanding of how CT is viewed and related to multiple aspects of a child's development. The Neurosequential and attachment theories can be used to describe many of the outcomes experienced and also play a large part in the development and use of effective interventions.

Neurosequential Theory.

The Neurosequential model of Therapeutics by Bruce Perry (2006) is a model that requires researchers and practitioners to think about situations through a developmental lens to be able to understand the impact of chronic trauma. The Neurosequential model describes the development of the brain by using a bottom up approach. The Bottom up approach implies that as the brainstem is known as the primitive brain, this region comprises of the crucial fight, flight, and freeze response needed for safety. If a child is exposed to an unpredictable or unsafe environment, and this is ongoing, their brain may remain in a constant state of fight, flight, or freeze. This is shown to be the case with children that have experienced prolonged trauma who

are at greater risk of being trapped in this cycle of survival due to the consistency and repetitive nature of their abuse (McLaughlin et al., 2015). The Neurosequential Theory suggests that even when the child has been removed from an unsafe environment, the primitive brain may still be functioning in flight, fight, or freeze mode. This neurological pathway can be difficult to reverse and therefore the child may be stuck in constant survival mode until the disrupted pathways can be repaired.

If an individual has experienced this disruption in their neurological pathways and is stuck in survival mode, it is difficult for them to effectively use other regions of the brain without this being resolved (Perry, 2006). The Neurosequential Theory suggests that in order for a child to be able to successfully learn new skills or obtain new information, interventions and/or therapy need to target the primitive brain in order to create a sense of safety for the child (Perry, 2006). Thus, it is recommended that therapists and practitioners working with children who have experienced CT, implement developmentally appropriate assessments and interventions, rather than only focusing on the child's chronological age. Further, in order to calm the fear response and retune important relationships, the intervention/treatment also needs to be repetitive and consistent in nature (van der Kolk, 2005). This provides children with the experience of positive and predictable relationships and allows numerous opportunities to develop strong attachment relationships that promote a sense of security and trust. Once children have these foundational relationships they will be able to more effectively process information and learn ways to cope and rebound from their traumatic experiences (Perry, 2006).

Attachment theory.

Attachment theory is the combined work of John Bowlby and Mary Ainsworth (Ainsworth, 1979; Bowlby, 1958). Bowlby argued that attachment behaviours must be displayed by the infant and returned by the caregiver in order for the infant to physically and psychologically survive (Bowlby, 1958). The connection between the two offers the child a safe place to explore the world. In order for a secure attachment to be formed, the responses from the caregiver to the infant need to be consistent and predictable. If the responses are inconsistent or unpredictable, the child may develop an insecure attachment with the belief that they are unable to rely on their caregiver for safety and security.

In order to achieve a healthy attachment, it is believed that the caregiver has to be attuned to the infant. The attunement of the caregiver to the child in difficult or stressful situations allows for the opportunity for the child to develop self-regulation. As infants don't naturally possess self-regulatory systems, they rely on their caregiver to keep them emotionally regulated until the infant acquires the ability to self-regulate.

Attachment style is commonly assessed by observing the responses of children when separated and reunited with their primary caregiver. There are four categories of attachment that an infant may display which are:

- Secure
- Insecure (avoidant)
- Insecure (anxious-ambivalent)
- Insecure (disorganised/disoriented)

Securely attached children feel confident exploring their environment and seek their caregiver when in distress. This attachment style occurs when the caregiver is consistently responsive to the infant's needs and allows the child to feel confident that they will be supported in times of distress. However, the insecure types have generally not received consistent support from their caregiver and thus either do not seek support or will seek support but reject and disengage from the caregiver as feelings of security have not been met consistently in the past. The avoidant attachment occurs when the caregiver is unavailable or unresponsive to the child and tends to discourage crying. This results in the child supressing their emotions such as not crying when hurt (Ainsworth & Bell, 1970). Differing from a consistent lack of responsiveness from the caregiver, the anxious-ambivalent attachment style is as a result of inconsistent responsiveness. The caregiver will at times be nurturing, caring and respond to their child's needs however at other times will be emotionally unavailable (Ainsworth & Bell, 1970). This leads to children to becoming confused and insecure which is often shown as clinginess. In 1986, (Main, Solomon, Brazelton, & Yogman, 1986), introduced the newest attachment classification 'disorganised/disoriented' to describe children who have no predictable response. A child may respond by impulsively running to their caregiver for support and then pulling away when in close proximity. This disorganised/disoriented attachment style has been shown to derive from unresolved trauma in the caregiver's own life (Main, 1990).

The attachment style developed in childhood has been shown to be predictive of adult behaviours and relationships. Bowlby explains this through the concept of an 'internal working model'. This internal working model is developed through the infant's perceptions and experiences of the availability of their caregiver. Through their caregiver's facial expressions, gestures, voice and responsiveness, the infant develops a view of themselves as worthy of care and attention, a view of others as trustworthy or untrustworthy and a view of the world as safe or dangerous.

In situations of maltreatment, the child is likely to have an insecure attachment and a negative internal working model due to their needs constantly not being met. This results in the child to unwittingly take on various maladaptive behaviours in attempt to create stability and security in future relationships (Clark, 2016b). Having an insecure attachment in childhood results in difficulties regulating emotions, having positive peer relationships and lower self-esteem (Lee & Hankin, 2009). Children who experience insecure attachment may also experience difficulties in their learning in a school environment (Geddes, 2006). For example, these children are more likely to experience performance anxiety, and difficulties with literacy or numeracy tasks. However, if secure attachment can be achieved the likelihood of adapting to school and responding to academic demands is increased (Geddes, 2006). Intervening with children at the beginning of the middle childhood period allows the child time to develop their social and emotional skills in preparation for future requirements such as handling the physical and emotional changes in adolescence, forming intimate relationships, and preparing for employment (Coates & Gaensbauer, 2009).

Outcomes associated with Complex Trauma

Recent research highlights the negative outcomes that repeated or prolonged exposure to trauma can have on a child's biological, cognitive and socioemotional development (Lupien, Ouellet-Morin, Herba, Juster, & McEwen, 2016) with negative outcomes particularly evident if exposure occurs early in development (Osofsky, Stepka, & King, 2017). These outcomes often include diminished social skills, inability to understand social situations, lower self-esteem, difficulty in attachment relationships and a lack impulse control (D'Andrea, Ford, Stolbach, Spinazzola, & van der Kolk, 2012). As a result of these outcomes there may be a decrease in physical health (Lucio & Nelson, 2016), an increased risk of developing

psychological conditions in adulthood such as depression and anxiety, and an increased chance of suicidal ideation (Copping, Warling, Benner, & Woodside, 2001).

Findings from the Adverse Childhood Experiences (ACE) (Felitti et al., 1998) study also suggested that the higher number of ACE's experienced, the more at risk an individual is for developing negative physical and psychological health outcomes (Fox, Perez, Cass, Baglivio, & Epps, 2015). For instance, research has shown that individuals exposed to multiple ACE's are more likely to experience an increase in mental health issues such as anxiety, post-traumatic stress disorder, sexual disorders, substance abuse, increased alcohol consumption and depression (Bellis, Lowey, Leckenby, Hughes, & Harrison, 2014; Felitti & Anda, 2010). However, it may be the case that many of the negative outcomes associated with multiple ACE's can be seen as adopted responses used to cope with the traumatic events in their childhood (Larkin, Felitti, & Anda, 2014). For example, using alcohol as a coping mechanism may result in less behavioural control and more risk-taking behaviours. Another example of this is the disrupted attachments due to early ACEs. The inability to form secure attachments in childhood may result in individuals experiencing sexual relations with multiple people and other sexuality related issues in adulthood in attempt to create an attachment bond with another person (Anda et al., 2006).

Internalising and Externalising behaviours.

Stress Model.

Although there are many factors that influence a child's response to a traumatic event, their resilience is a critical aspect in determining their ability to cope with adversity (Center on the Developing Child, 2012). In situations of danger/stress, the body prepares to respond by increasing the heart rate and the stress hormone cortisol. If a child is in an environment with supportive and nurturing adults, the child's physiological symptoms of stress have been shown to decrease (National Scientific Council on the Developing Child, 2012). However, in cases of prolonged, multiple stressors, or the unavailability of supportive and nurturing relationships, the stress response system remains activated resulting in the child being stuck in the primitive/reptilian brain which focuses purely on survival. The constant activation of the survival responses restricts other systems in the brain (e.g. the limbic (emotional) and neocortex (learning) that perceive the environment in an inquisitive way allowing for the possibility of new learning experiences (Lawson & Hight, 2015). When a child is constantly in

this state of arousal, other areas of the brain involved in tasks such as memory, and learning cannot be reached (National Scientific Council on the Developing Child, 2012). This is explained in more depth previously when discussing the bottom-up approach of the Neurosequential theory.

Pro-social Behaviours.

Pro-social behaviour is shown by an individual's concern for the feelings and welfare of others and is defined as voluntary actions that will be beneficial to others (Wentzel, 2015). This can be shown through acts such as sharing or comforting (Knickerbocker, 2003). The links between pro-social behaviours, emotional regulation, and attachment have been discussed using developmental models such as Bowlby's attachment theory, Cicchetti & Lynch's (1993) ecological-transactional model, and Gottlieb's (1991) epigenetic psychobiological systems perspective. It is suggested that a secure attachment is a part of a cascade of factors that contribute to a child's development. For example, a secure attachment allows for positive emotional regulation which may help children to form friendships in which pro-social behaviours are more likely to be exhibited. Emotional regulation may also be linked to pro-social behaviours through the attachment model. Through co-regulation with a caregiver, securely attached children are able to effectively maintain a calm/regulated state to be able to focus on the needs of others.

Like many other behaviours and competencies, pro-social behaviours can be viewed through an attachment lens. Children with insecure attachments are less likely to engage in pro-social behaviours because their inner working model views others as untrustworthy. When these children do engage in pro-social behaviours, their motivation is likely to be different to securely attached children. For example, a child with insecure attachment may give up a toy to another child to avoid conflict rather than to benefit the other child (Blair, Denham, Kochanoff, & Whipple, 2004). For a child that has experienced prolonged trauma, their difficult in understanding social cues and the experience of sharing may result in a stress response to avoid confrontation, likely leading to the use of fewer pro-social behaviours.

Self-regulation.

Impaired self-regulation is common amongst children that have been exposed to CT (Alink, Cicchetti, Kim, & Rogosch, 2009). The constant exposure to traumatic stress early in life, often

disrupts the ability to successfully co-regulate with a caregiver and therefore children may not develop the skills needed to self-regulate effectively (McLean, 2018). Co-regulation occurs when a parent or caregiver consistently engages with the child showing interest and recognition of the child's interactions (Osofsky et al., 2017). By observing the adult's reactions to situations, the child is able to learn to regulate their emotional responses independently and react in an appropriate way (Osofsky et al., 2017). Children that have experienced CT in their first few years are likely to have not experienced this co-regulation and may have learnt no or few socially acceptable ways of calming themselves (McLean, 2018). Two common ways these children present themselves in times of stress is by emotional over-control or emotional under-control (McLean, 2018). Over-control in children relates to the internalisation of emotions. Children may have difficulty expressing emotions which can be shown by not crying or little response to being hurt. Under-control is often displayed as extreme responses to minor events such as screaming and hitting someone for taking a pencil from them. This lack of self-regulation may be seen within school and home life as withdrawal or lack of response from situations, or disproportionate or disruptive responses such as hitting or screaming (McLean, 2018).

Dan Siegel (Siegel, 1999) introduced the term 'window of tolerance' to describe the optimal arousal level required to function effectively. The concept suggests that each individual has a tolerance level that allows for the highs and lows experienced in life. When negative feelings such as anger or pain bring individuals close to the edge of their window of tolerance, they are generally able to engage in strategies to bring them back down to a calm arousal level (through self-regulation). When experiencing constant stressors, this window becomes narrower and inflexible, resulting in the activation of the fight, flight or freeze reaction more often. This, as discussed previously is often shown through over-control and under-control of emotion.

Relationships.

Research has shown that children who have experienced CT may also have difficulty finding security and safety in another adult or caregiver (Rahim, 2014). This may be because the child has a disrupted attachment that leads them to believe that no other adults will be able to meet their needs. These children may also perceive themselves as unworthy of care and attention (van der Kolk, 2005). This concept relates back to a child's inner working model and has been discussed in more detail in 'Theoretical perspectives' in relation to Attachment theory. This

inner working model is also evident later in life suggesting that attachment bonds and relationships developed in childhood are the basis of future relationships. If a child is consistently taught that adults will not meet their needs, this view will also be believed in adult relationships thus individuals may find it difficult to trust their partner (Magai, 2008).

Health Outcomes.

Longitudinal studies such as The Adverse Childhood Experiences (ACE) Study (Felitti et al., 1998) and the Dunedin Multidisciplinary Health & Development Study (1972). have shown negative long-term health outcomes for individuals exposed to early childhood trauma. Findings from the ACE Study found associations between early childhood trauma and chronic illness such as cancer or respiratory diseases in adulthood (Monnat & Chandler, 2015). More specifically, children who had experienced sexual abuse had a 36% higher chance of being diagnosed with diabetes and also showed significantly higher likelihood of cardiovascular failure in adulthood (Monnat & Chandler, 2015). Research has also shown that ACE's contribute to functional changes on the developing brain (Anda, Butchart, Felitti, & Brown, 2010) and can lead to chromosomal damage (Shalev et al., 2013). This risk is heightened when individuals are exposed to multiple ACE's. Although there are numerous studies around ACE's, it is important to note that the findings refer to a variety of experiences and cannot always be seen as CT. For example, a child who has experienced sexual abuse once would be given the same ACE score of 1 as a child who has experienced sexual abuse multiple times.

Age and gender differences.

Considering the lack of research around CT, it is not surprising there are few studies examining gender differences in the experience of childhood trauma. In addition to the uncertainty of the CT definition, many studies focus on a particular type of trauma such as physical abuse, or sexual abuse (Ajduković, Sušac, & Rajter, 2013) with some focusing on maltreatment in general. Within the research around gender differences in CT studies, researchers have found some differences between the types of traumatic events experienced. For example, in a sample of American adolescents, boys reported that they had witnessed more forms of serious violence such as muggings or shootings whereas girls witnessed more sexual assaults. A large number of studies have also reported that girls are more likely to experience sexual assaults than boys (Gunter, Chibnall, Antoniak, McCormick, & Black, 2012; Hennessey, Ford, Mahoney, Ko, & Siegfried, 2004; Tolin & Foa, 2008).

Research related to gender differences in CT related symptomology is also limited yet conclusively many studies show a higher rate of internalising disorders from woman, whereas males are shown to experience more externalising disorders (Wamser-Nanney & Cherry, 2018). Although the length of maltreatment was not investigated, a study by Godinet, Li, and Berg (2013) found that symptoms of early maltreatment was evident in the initial assessment scores collected for boys whereas girl's symptomology was most evident in the assessments collected over a longer of time. Both girls with a history of maltreatment and without were shown to have the same level of internalising problems at the initial assessments, suggesting that the internalisation of their emotions and experiences are not as detectable as externalising symptoms found in boys. If this study has shown a delay in the presentation of symptoms for girls that have experienced adversity in life, outcomes from other studies/interventions may have been more effective if extended to allow for this gender difference.

Findings from the Social, Emotional and Behavioural Difficulties in New Zealand Children: Technical Report (Ministry of Health, 2018) also found that boys had higher scores for hyperactivity, conduct and peer problems than girls. However, it was shown that girls were more likely to have a higher score in relation to emotional problems. These findings are in line with previous research where boys have a tendency to express their problems through externalising behaviours whereas girls are more likely to internalise them (Simmons & Granvold, 2005).

Interventions

The Substance Abuse and Mental Health Services Administration (SAMHSA, 2014), outlines six principles that make up a trauma-informed approach; safety, trustworthiness and transparency, peer support, collaboration and mutuality, empowerment, voice and choice, and cultural, historical and gender issues. A trauma informed approach uses recommendations from neuroscience, attachment theory and developmental science to identify the most effective ways to approach CT, with these six principles being evident in the majority of interventions and literature. To work in a trauma-informed way, a multi-level approach is required to create a culture within organisations, communities and individuals that incorporates the six principles as core values (SAMHSA, 2014).

Changes to the 'Let's get real' framework (Te Pou o te Whakaaro Nui, 2018) includes many of the principles outlined above and includes a need for anyone involved in trauma work to be able to demonstrate an understanding of the impact that trauma has on people's wellbeing. The framework includes a definition of trauma-informed care, principles such as safety, collaboration and trustworthiness reflected in the values and the recognition of historical intergenerational trauma experienced by Māori people.

The trauma-informed approach allows for organisations, workers and service users to share a universal view and understanding of the best approach when working with trauma. This mutual understanding between organisations and individuals supports research on the importance of safety and stability when working in the field of CT. Bessel van der Kolk (2005) amongst other researchers believe that a child's ability to manage their fight/flight reactions needs to be addressed before starting an intervention. This requires the child to gain the capacity to observe situations and respond accordingly, which can be achieved initially through providing a predictable, safe and fun environment (van der Kolk, 2005) and then focus on the remaining principles. The importance of developing a sense of safety, secure attachments, and emotional regulation skills have been described in previous sections showing how all aspects have a positive effect on each other.

With the increase in research on CT, intervention models are gradually becoming more available (Lawson & Quinn, 2013). Many of these interventions were originally designed for PTSD, however modifications and adaptations have been made for use with children that have experienced CT (Cohen, Mannarino, & Deblinger, 2006). Due to the complex changes through a child's development, treatment and intervention models are flexible to ensure that the tasks involved in the interventions are can be adjusted to account for different ages and developmental needs (Cohen et al., 2006). Each of the four interventions described below, use the six principles outlined by SAMSHA to provide a suitable intervention to help support children that have experienced CT.

Attachment, Self-Regulation and Competency (ARC).

The Attachment, self-regulation and competency (ARC) framework is a component-based intervention that is flexible in the way it addresses children and adolescents that have experienced trauma. Through collaboration between the Trauma Centre at Justice Resource

Institute and the National Child Traumatic Stress Network (NCTSN) developers Kristine Kinniburgh and Margaret Blaustein introduced a framework, core principles of intervention and a guide for providers to use across multiple service settings. The ARC model uses the three core domains that are commonly affected by exposure to CT; attachment, self-regulation, and competency (Arvidson et al., 2011). The attachment domain of the intervention focuses on psychoeducation to teach the caregiver about trauma and the responses generated by their child to ensure interactions and responses between the two are balanced and understood (Arvidson et al., 2011). The second domain aims to identify and build on the child's ability to self-regulate by supporting their capability to effectively regulate or manage their physiological and emotional experiences. The goals of the competency domain focus on the child's application of their skills (both old and new) to daily life with an emphasis of supporting their capacity to engage appropriately in their immediate environment (Blaustein & Kinniburgh, 2010).

The flexible nature of the ARC framework allows for adaption of the framework/intervention to different settings, such as schools or residential treatment centres (Hodgdon, Kinniburgh, Gabowitz, Blaustein, & Spinazzola, 2013). The ARC framework has been revised multiple times since its initial development in 2003 and has be used in various settings such as schools, juvenile justice systems and early intervention programs (Blaustein & Kinniburgh, 2010). Organisations that have used the ARC framework throughout its development have contributed to the various revisions through feedback and the results from real life applications of ARC. This has enabled the developers to refine the framework to ensure the intervention is grounded in both theory and real-life applications (Blaustein & Kinniburgh, 2010). Although there is a lack randomised control studies examining the effects of an ARC intervention, several observation studies have been conducted showing the potential benefit and importance of ARC becoming an evidence-based intervention (Bartlett et al., 2018).

The current literature showing the effectiveness of an ARC intervention, focuses on the parents/caregiver's outcomes in relation to their level of involvement before, during and after the intervention as well as the child's response to the intervention. In a sample of adopted children with CT and their caregivers, the ARC intervention resulted in both child and caregiver improvements in functioning. Child symptoms including internalising, externalising and dissociative symptoms decreased post treatment and were maintained over the 12month follow-up (Hodgdon, Blaustein, Kinniburgh, Peterson, & Spinazzola, 2016). This sample also found improvements in caregiver's perception of their child difficulties at completion of the

intervention (Hodgdon et al., 2016). Treatment effectiveness has also been shown to be effective in residential treatment settings (Hodgdon, Kinniburgh, Gabowitz, Blaustein, & Spinazzola, 2013). This may be due to the interactions and experiences the youth received on a continuous basis. All residential staff were trained and supervised to use the components of the ARC model at all times which may not be possible in home/clinic-based interventions in which the caregiver is involved. A sample of female youth, aged 12-22 years showed a decrease in trauma related symptoms such as a lower overall PTSD score, lower levels of hyperarousal symptoms, and a decrease in aggressive behaviours, attention problems and several other aspects measured on the Child Behaviour Checklist (CBCL) such as depressive symptoms, thought problems and rule breaking behaviours (Hodgdon et al., 2013).

Child-Parent Psychotherapy (CPP).

Child Parent Psychotherapy (CPP) is a treatment designed for use with young children ages 0 – 5 years of age that have experienced at least one traumatic event (Lieberman, Ippen, & Dimmler, 2018). Goals of the intervention are to restore the child's sense of safety and attachment with their caregiver which then suggests improvement in the cognitive, behavioural and social functioning of the child (Lieberman et al., 2018). CPP aims to equip parents/caregivers with the resources and understanding of how to maintain an effective attachment and relationship with their child (Lieberman & Van Horn, 2011). The strategies taught and used are informed by the individual family's issues and developmental stage of the child and any culturally relevant attitudes towards parenting (Lieberman & Van Horn, 2011). This allows for the personalisation and flexibility to effectively engage and treat the family.

Five randomised controlled trials have shown the effectiveness of CPP on the improvement of child trauma symptoms such as less behavioural problems and a more secure attachment. A study by Lieberman, Ghosh Ippen, and Van Horn (2006) demonstrated that children who had been exposed to marital violence had a reduction in behavioural concerns after receiving the CPP intervention. The effects were also shown 6 months post intervention with the intervention group showing significantly fewer behavioural problems than the control group. Due to the young age of children undergoing this type of intervention, much data focuses on the caregiver and their behaviours/actions. A study comparing CPP and a psychoeducation home visitation intervention (PHV), showed caregivers receiving CPP had a larger decline in maladaptive parenting responses such as less disciplinary actions such as placing a child in time out, and

less yelling than the PHV and control groups (Toth, Maughan, Manly, Spagnola, & Cicchetti, 2002). The flexibility of CPP to adjust and administer the intervention allows for barriers to be removed to allow families to engage in the interventions. This has been illustrated in a case study by Bergeron (2017) in which the therapist allowed for the intervention to be located at the family's house to diffuse a transport barrier. Although this is dependent on the individual therapist's flexibility and available spaces, this flexibility allowed the family and therapist to build a trusting relationship, which the therapist integrated into the attachment education that the family would receive.

Similar to CPP, the Preschool-Parent Psychotherapy (PPP) intervention incorporates parent-infant attachment strategies to develop and promote positive interaction and behaviours between the parent and child (Toth et al., 2002). Researching comparing PPP with PHV and a control group found that parents and infants in the PPP group had less negative self-representations and more positive self-representations on completion of the study. This finding demonstrates the PPP intervention was able to effectively teach and work with parents to allow them to feel more confident in their abilities to parent and respond to their child. The results add to the evidence that using an attachment-based intervention focusing on self-system processes (processes that help a person make sense of a situation and what tasks to pursue) have beneficial results for future resiliency.

Integrative Treatment of Complex Trauma with Children (ITCT-C).

Integrative Treatment of CT with Children (ITCT-C) is an assessment driven treatment originally designed for children 8-12-years but has been adapted for use with children aged 5-7 (Lanktree et al., 2012). Like other CT interventions, ITCT-C uses personalised information related to the individuals age, cultural background and developmental stage during the abuse to adapt the intervention (Lawson & Quinn, 2013). This allows the clinician to incorporate a personal aspect in the intervention to further build rapport and trust with the child. The timing of the child's abuse is important for the clinician to gain a better understanding of what stage of development has been disrupted. The intervention integrates aspects of play therapy, cognitive therapy, art therapy, and exposure therapy dependent on the needs of the individuals referred for treatment. ITCT-C also states the importance of the relationship and attachment of the family and therapist which supports previous evidence of the importance of ensuring a

sense of safety and security within the intervention itself (Lucio & Nelson, 2016; Toth et al., 2002; van der Kolk, 2005).

When working with children in middle childhood, the majority of the sessions within ITCT-C are one on one sessions with the child and therapist, however individual work with caregivers, family sessions and group therapy are also included (Lawson & Quinn, 2013). A study using a sample of 151 clients from a specialised child trauma centre used the Trauma Symptom Checklist for Children (TSCC) to observe outcomes from an ITCT-C intervention. Over a period of 3-8 months (M=6.79 months) all participants TSCC scores reduced from pre-treatment scores with reductions in post-traumatic stress, anxiety and depression (Lanktree et al., 2012). As the length of the intervention differed between each individual, an association between length of treatment and improvements in symptom expression was found. Although the flexibility of this intervention and other multimodal therapies is beneficial for the implementation, the fidelity of the intervention leads to more difficulties in defining and monitoring (Lanktree et al., 2012). In a review of several CT interventions, Lawson and Quinn (2013) found an apparent weakness of ITCT-C is the lack of peer group work that is involved in the intervention. When working with this middle childhood age, the ability to effectively engage in age-appropriate communication with peers is an essential developmental stage therefore interventions should include a group aspect to provide additional support and learning opportunities through the interactions with others.

Trauma Focused Cognitive Behavioural Therapy (TF-CBT).

Trauma-focused Cognitive Behavioural Therapy (TF-CBT) is one of the most commonly used treatments for individuals that have experienced trauma. With its strong empirical support, it is used by a variety of services throughout the world. TF-CBT is administered in 8 components known as PRACTICE and are delivered in one of three phases.

First is the stabilisation phase, where the individual is introduced to psycho education, relaxation skills, affective regulation skills, and cognitive processing skills. This phase aims to teach individuals how to understand and successfully respond and self-regulate to the negative affects they may feel related to the trauma they have experienced. The idea of teaching the individuals skills and emotional regulation allows for the intervention to be generalised to multiple traumatic life events. Once completed, the next phase focusses on a trauma narrative,

guiding the individual to create a comprehensive narrative of their trauma. The narrative allows for individuals to make sense of their trauma through the organisation of emotions. Children are often read a developmentally appropriate book about the traumas they've experienced to give them guidance and ideas of what will be asked of them. An introductory chapter typically includes information such as their name, activities they enjoy and reason for attending therapy. This introduction allows the therapist to identify the developmentally ability of the individual and set appropriate expectations (Pollio & Deblinger, 2017). During the final phase, the aim is to integrate/consolidate the previous phases learnt and look forward to what is needed for future success (e.g. teaching safe, healthy sexual practices, clear communication and how to develop a safety plan (Orengo-Aguayo, Hanson, Moreland, Jobe-Shields, & Adams, 2018). This is achieved through in vivo mastery of trauma reminders, a conjoint child-parent session, and finally enhancing safety through a plan for the future.

With over 20 randomised control trials, TF-CBT is one of most rigorously tested treatments for children exposed to trauma (Bartlett et al., 2018). However, to date, there is only one study that specifically looks at the use of TF-CBT with children who have experienced CT (Cohen, Mannarino, Kliethermes, & Murray, 2012). Through describing the practicality of applying TF-CBT to individuals that have experienced CT, Cohen et al. (2012) provided information to support the use of TF-CBT with this population. In order for TF-CBT to be effective for children that have experienced trauma the duration of treatment needs to be extended to allow for more sessions at the beginning to build the trust and safety needed in order to work on each phase. Although enhancing safety is usually the final component of TF-CBT, individuals that have experienced ongoing threats to their safety will require their safety concerns to be met first and continuously throughout the intervention (Cohen et al., 2012).

TF-CBT as with the original CBT requires the individual to have reasonably high cognitive abilities in order for the treatment to be understood and effective (Cohen et al., 2006). The large cognitive focus does not take into account the potential low developmental age of a child and their ability to understand what is being asked of them during intervention. TF-CBT also requires an acknowledgment of the trauma(s) in order to participate successfully in the narrative component of the intervention (Pollio & Deblinger, 2017). This may be specifically problematic for children that have experienced CT or trauma early in life in which the child has no account of the trauma they have experienced. As such, interventions should take into account the developmental level of each child and their needs in order for the cognitive aspect

of TF-CBT to be most effective. The need of acknowledgment of the traumas may explain the lack of research on the effectiveness of this intervention for children with CT. Although the trauma narrative component is recommended when treating adults and youth with traumatic symptoms, evidence around its effectiveness with children is limited (Deblinger, Mannarino, Cohen, Runyon, & Steer, 2011). One study found a decrease in parent reported externalising behaviours when the trauma narrative was excluded from the intervention (Deblinger et al., 2011). However, this may be a result of the extra parenting sessions used in replacement of the narrative.

Interventions should focus on the basic needs of the child such as safety and security to ensure regulation of their emotions is achieved before including cognitive tasks relating to the potential memory of the trauma. One intervention that uses this bottom-up approach is Theraplay, which will be discussed in detail to provide an understanding of why Theraplay, in particular, Group Theraplay can be an effective intervention for children who have experienced CT.

Theraplay.

Theraplay is an engaging, relationship-focused intervention aimed to meet the needs of children with complex needs such as regulatory, attachment or social difficulties resulting from their life circumstances. Founded by psychologist Ann Jernberg in 1967, the initial aim of Theraplay was to increase bonding between mothers and their children (Booth & Jernberg, 2009). Typically, the age range for this intervention is from birth to 12 years, however, the design of the intervention focuses on the child's developmental age as opposed to their chronological age (Booth & Jernberg, 2009). The intervention is based on the idea that through structured and adult led play and activities, children learn how to regulate their emotions, engage with others and build healthy relationships.

As the name suggests, Theraplay incorporates play into the intervention yet differs from typical play therapy by using an adult led and structured approach (Booth & Jernberg, 2009). In 1962, Piaget expanded Sigmund Freud's work dating back to the 1900s, to state the importance of play and its effect on children's cognitive abilities in addition to the socioemotional development. Since these discoveries, play therapy and other play-based therapies have become more commonly used with different approaches being introduced to support children

with more complex needs such as abused children or individuals with developmental delays (Porter, Hernandez-Reif, & Jessee, 2009). For children that have experienced CT, the opportunity to play with peers and caregivers may not have been provided and thus would benefit from play based interventions.

Theraplay is based on Attachment theory and uses the four qualities found in parent-child relationships to create a positive emotional connection and promote a sense of security and belonging. These qualities are structure, engagement, nurture and challenge. Structure is shown by the adult taking charge and organising the session by including activities that have a beginning, middle and end. The structure component conveys to the child that someone bigger and more capable can provide a safe and predictable environment (Booth & Jernberg, 2009). Engagement is achieved through communication and by allowing the child to feel noticed. Sharing laughter, and positive stimulation also help the child learn that surprises and new experiences can be enjoyable. The role of the nurture component is to show the child that they are worthy of care and that their needs for comfort and affection will be met. Soothing activities such as making lotion hand prints or swinging in a blanket also help the child become regulated. The role of challenge within sessions are to support and encourage competence felt by the child. Activities are specifically designed for success to ensure that there is no chance of a child failing and feeling less competent.

By developing activities based around these qualities, each session allows the child and adult to practice the skills needed to develop and implement what they have learnt in their future interactions. In order for children to learn the skills and coping strategies to respond to the trauma, they must feel safe and have trust in others (MacKinnon, 2012). Theraplay attempts to achieve this by developing intervention activities that are individualised and allow the practitioner to focus on the child's specific strengths and challenges. This approach to intervention is grounded in the bottom-up approach to brain development suggesting that it is possible to build up the parts of the brain that may have been interrupted by the trauma during development (MacKinnon, 2012).

The tiered service model of Theraplay provides three subcategories to allow for the inclusion of children with varying level of needs. The first tier named Sunshine Circles (SC) can be used at a universal level for general populations. SC can be used with large groups of children making it possible for schools/organisations to support multiple children when limited with

time and resources. This initial level is generally used to promote socioemotional development and is not designed to focus on specific needs of a child. However, the middle tier, Group Theraplay (GT) is offered for individuals that need a more targeted intervention. This is usually conducted in a group setting with either peers or family. The number of children in Group sessions is relatively small so adults and therapists can focus and target specific needs of each child whilst increasing the sense of belonging by being a part of a group. For intensive interventions with individuals with high needs, the top tier of one on one Theraplay intervention will typically produce the best results (Booth & Jernberg, 2009). This commonly includes therapist and the child sessions and parent/caregiver and child sessions. In these sessions, the therapist will work with the parents to enable them to connect and relate to the child.

Several studies have noted the effectiveness of both individual and GT interventions. Research comparing these two formats was carried out by Francis, Bennion, and Humrich (2017) with a sample of looked after children. Results showed a difference in scores between the group or individual treatment, with participants in the group sessions showing a decrease in overall SDQ scores whereas the scores of participants receiving individual sessions increased (Francis et al., 2017). The inclusion of group work and the objective to support peer relationships was also mentioned in the qualitative results from this study.

Theraplay differs to other treatment models such as CPP or ARC in that its effectiveness of using groups or school settings has been shown and utilised. This goes against McCrea, Guthrie, and Bulanda (2016) idea that many of the best-validated family service models, including Theraplay, require parental participation. Despite the majority of research focusing on the more well-known interventions such as CPP, ARC, and TF-CBT, GT targets similar constructs to these interventions and adds a further tiered approach providing utilisation for a variety of individuals.

Chapter Three Methodology

This chapter presents an overview of the research design and methodology of this study. It begins by presenting the ethics approval, and research design followed by the setting, selection criteria/participants, and measures used. This is followed by a description of the GT intervention and the procedure, including recruitment/consent and the complications around this stage. This chapter then finishes with the data analysis and summary paragraph to transition into the results (Chapter 4).

Ethics

Ethical approval for this study was obtained from the University of Canterbury Human Ethics Committee (HEC 2018/64) (Appendix A). Consent was also obtained from Stand Children's Services Tū Māia Whānau (Stand Tu Māia). This consent allowed the researcher to communicate with the social workers within the residential village and to use the facilities for the purpose of implementing a GT intervention. A copy of this written consent can be found in Appendix B.

Study Design

This study used a pre-test-post-test design with four participants. Pre-test-post-test designs are most commonly used to compare groups or measure change from interventions or experimental treatments (Dimitrov & Rumrill, 2003). Using this design allowed us to assess the usefulness of the GT intervention for each child individually.

Pre-intervention testing helps measure individuals' knowledge, skills, and current ability (Thiese, 2014). When working with children who have experienced CT, I felt it was important to be able to identify the children's baseline before intervention. Due to the sensitive topic, it was not feasible to gain information relating to the severity and complexity of their histories, therefore, the pretesting stage allowed us to note individual differences prior to intervention which may be used as a comparison to other research and results. Pre-testing is particularly important when working with trauma related individuals to allow changes in behaviours to be tracked which may help inform other professionals of any behaviours or strengths identified throughout the intervention/recovery journey (SAMHSA, 2014). Although this design is

helpful in suggesting the impact of the intervention, there is no control over other factors (e.g. changes or events in home life, or illness) that may have impacted the scores post-intervention, and children's responsiveness to the intervention itself.

Although a randomised control trial would have been the gold standard for conducting this intervention research (Silverman, 2009), this was not possible due to the small number of participants recruited and the time constraints of a master's thesis. It was the intention of the researcher to use this design however after several challenges in the recruitment stage, we were not able to recruit further.

Setting.

The GT intervention took place at the Christchurch Stand Tu Māia village. My interest in this organisation and their services was initiated by a period of casual work prior to starting this master's thesis. I was intrigued by the use of GT and how the children responded and showed change in their behaviours throughout their stay. I acknowledge this personal bias; however, I was not working at the village for the duration of the intervention and had no financial or other incentives from the organisation. The exception to this was the opportunity to receive training in the delivery and implementation of GT and the use of the facilities and staff within the organisation.

Christchurch Stand Tu Māia village is predominantly used for residential village stays for the children receiving Stand services, which includes space for the residential social workers, and the Therapeutic care and education team. It also provides spaces for the Family Therapy service, and Mana Ake (counsellors in schools). The residential stays involve children coming to the village to stay for up to 5 weeks. During this time, they are exposed to positive relationships with peers (who have also been referred to the service) and therapists who work with the children throughout the day. This allows the children to experience a therapeutic environment where everyone is working together to help each child through their difficulties. This includes their social worker, an education-based team, a therapeutic care team and their parents/caregivers who work closely together to provide an integrated model of therapeutic intervention (Castonguay, Eubanks, Goldfried, Muran, & Lutz, 2015).

Stand Tu Māia has three principles supported by the evidence base of multisystemic therapy and the therapeutic community movement, that underpin their approach when working with children (Stand Tu Māia, 2019). This is achieved through the residential village stays where the environment provides the children with experience of everyone working together to work on their personal, educational and community goals, and providing belonging, mastery, independence and generosity experiences. During their stay, the children participate in SC 4 times a week (see pp 26 for a more detailed description of SC). In addition to this, the children are taught strategies and coping mechanisms to help them with their individual goals which are also supported by staff throughout the day and/or night. Although the parents/caregivers do not attend the village stays with their children, the parents are kept up to date with their child's progress during their stay. This is mostly achieved through calls, or face to face meetings when possible. The children are allowed to contact their parents/caregivers at any time throughout the week and are returned home each weekend. Whilst the children are attending the village stay, the social workers may spend time with the parents to offer support and additional interventions based on the goals for themselves and their child. This can include parenting programs, food parcels or referral to adult-focused services if necessary.

Selection Criteria.

Children were aged 8-13 and attended schools across the Canterbury region. All children and their families were currently receiving support from Stand Tu Māia. Stand Tu Māia supports children and their families who are at significant risk of harm to their well-being as a consequence of their environment and/or complex needs. In order for families to access the service, the child must be referred by a health practitioner (e.g. a doctor, social worker or a practitioner from another social services provider such as Barnardos or Methodist Mission). The referral form includes a child trauma screening and other questions relating to the child's/family's history as well as a description of why the referrer believes that the child needs support from Stand Tu Māia's service. The referral form should guarantee that the child/family has met the criteria and is willing to receive the services, however, this is also followed up with the social workers at Stand Tu Māia before the referral is accepted. A copy of the referral form can be found in Appendix C.

The children must have experienced either multiple or prolonged episodes of trauma between the ages of 0-3 years and be showing current signs of difficulty relating to relationships,

regulation of emotion, attention or conduct. These selection criteria were used by the social workers to identify children who were eligible to participate in this study.

This age group was chosen because middle childhood represents a developmental period when children are still establishing critical social relationships and emotional skills (Coates & Gaensbauer, 2009). GT is considered one type of effective intervention approach for middle childhood (Booth & Jernberg, 2009, 2010) because it focuses on scaffolding these developmental skills. However, to the researcher's knowledge, no studies to date have examined the usefulness of GT as an intervention to promote these developmental skills in children who have experienced CT.

The trauma experienced could include any of the following examples: exposure to natural disasters, sexual abuse, physical abuse, neglect, living with a family member with drug/alcohol-related issues, or witnessing domestic violence (van der Kolk, 2005). Children who have experienced any of these events in their early years have been shown to be at greater risk of developing mental health problems, physical health problems and other negative outcomes (Poulton, Moffitt, & Silva, 2015). These negative outcomes include diminished social skills, inability to understand social situations, lower self- esteem, difficulty in attachment relationships and a lack of impulse control. Thus, children chosen to participate in this study were considered to be at a greater risk of experiencing some of these negative outcomes. This information of participant's difficulties was known to the social worker and was gained through assessments with the parents, teachers and observations (see Appendix C).

Participants.

Children.

The final sample of children who participated in the GT intervention were 5 boys and 1 girl ranging from 8 to 13 years of age (M = 10; SD = 1.83). Table 2 summarises the characteristics of each child including their age, sex, whether they have a known co-morbid diagnosis, and whether they were attending the residential setting. At the time of the intervention, 3 of the 6 children participating in the GT were attendees of the residential village stay. The remaining 3 children were receiving support from social workers however were not attending the residential setting at the time of intervention. These children were specifically brought into the village for the GT sessions.

Table 2 - Participant Information

	Age	Sex	Co-morbid diagnosis	In residential setting	Intervention Received
Child 1	9	Male	ADHD & ODD	No	Group Theraplay
Child 2	11	Male	Anxiety & ODD	No	Group Theraplay & Sunshine Circles
Child 3	11	Male		Yes	Group Theraplay & Sunshine Circles
Child 4	8	Male	ADHD	Yes	Group Theraplay & Sunshine Circles
Child 5	13	Male		No	Group Theraplay
Child 6	8	Female		Yes	Group Theraplay & Sunshine Circles

As child 3, 4 and 6 were staying within the Stand Children's Services Tū Māia Whānau (Stand Tu Māia) residential setting, it was expected that they would attend all 10 sessions of the SC and GT Sessions. Exceptions to this would have been based on unexpected circumstances (e.g. sickness or other commitments). Due to the other 3 children being transported to the setting specifically to participate in the GT sessions, they were not expected to attend SC. As shown in Table 3, not all the children participated in the expected interventions. Of the three children that were staying within the residential setting and received the GT intervention, only two attended the full number of SC. The children transported into the setting specifically for the GT did not attend as much as intended with two of these children received half or less of the GT sessions.

Table 3 - Intervention Received

	Child 1	Child 2	Child 3	Child 4	Child 5	Child 6
No. of Group Theraplay Sessions	5	6	10	10	4	10
No. of Sunshine Circle Sessions	0	2	10	9	0	10

Parents.

The parent/caregiver was required to complete the Strengths and Difficulties Questionnaire (SDQ) (Goodman, 2001) pre and post their child receiving the GT intervention. As the

questionnaire required parents/caregivers to answer questions relating to their child, this role was given to the parent/caregiver who had the most interactions with the child. The SDQs of children 1-5 were filled out by their mothers, with child 6's SDQ was completed by their father. No demographic information was collected from parents/caregivers.

Teachers.

The intention was to recruit teachers, however, only 2 responses were received. This was considered insufficient for the purposes of identifying a correspondence between teacher and parent reports of the child's strengths and difficulties. As such, the research team made the decision to remove teachers from further recruitment, data collection and analysis. This is recognised as a limitation of this study and the implications of this for future research will be discussed in Chapter 5.

Facilitators.

The team of facilitators implementing the intervention consisted of four females aged between 25 – 60 years of age. All were trained in GT with three of the facilitators having facilitated more than 50 GT sessions previously. Two of these members also consistently facilitate daily 'Sunshine Circles' (Booth & Jernberg, 2009) (a larger, more broad version of GT, see pp 27 for a detailed explanation) over the last 3 years. The third member has facilitated Theraplay practices in multiple settings and with various populations including Individual Theraplay, parenting Theraplay and GT. The facilitator's professions were a registered psychologist with over 20 years experience, a registered social worker with over 40 years experience within the organisation, and a registered teacher with over 30 years experience and a child and family psychology student (principal researcher) with 8 years working within the child mental health sector. This varied experience of the members within the group ensured that each facilitator had extensive knowledge of working with children from complex backgrounds.

Pre and Post Measure

Strengths and Difficulties Questionnaire.

The Strengths and Difficulties Questionnaire (SDQ) (Appendix D) was chosen for its ability to measure behavioural and emotional difficulties of children age 3-16 years (Goodman & Goodman, 2009). The SDQ has been extensively used across various countries as a clinical and research questionnaire and has been shown to have good psychometric properties

(Goodman, 2001). The questionnaire includes 25 questions relating to both the positive and negative attributes of the child. Parents/caregivers answer on a scale of 'not true', 'somewhat true', or 'certainly true' for each of the statements described in the questionnaire. There are five subscales on the SDQ: emotional symptoms, conduct problems, hyperactivity/inattention, peer relationship problems and pro-social behaviour. Examples of statements from each subscale are displayed in table 4. The total score on each subscale indicates the difficulties children are experiencing in these domains. The total combined score on all of the subscales except pro-social behaviours gives a measure of total difficulties experienced by the child, as rated by the parent/caregiver. A high score indicates a potential risk for emotional or psychological problems. The score regarding pro-social behaviour denotes the number of pro-social skills a child demonstrates; therefore, a low score may indicate a low level of pro-social behaviours.

Table 4 - SDQ Example Statements

Subscale	Item Description	Item Number
Emotional Symptoms	Nervous or clingy in new situations	16
Conduct Problems	Often fights with other children	12
Hyperactivity/Inattention	Easily Distracted, concentration wanders	15
Peer problems	Rather solitary, tends to play alone	6
Pro-Social Behaviours	Shares readily with other children	4

Scoring Categories for the SDQ.

SDQ scores can be categorised into 'normal', 'borderline', or 'abnormal' categories. The 'Total difficulties' score and the total scores from each of the 5 subcategories are categorised based on the cut-off points for each category. A copy of the cut-off scores is provided in Appendix E. These cut-off scores are based on a population-based sample from the United Kingdom (Goodman & Goodman, 2009).

Group Theraplay

Core components of Group Theraplay.

Throughout the GT sessions, a mixture of upregulating activities and calmer or down-regulating activities were used. The rationale for using a combination of these activities is to allow for regulation to be modelled by the facilitators and to expand the window of tolerance through co-regulation (Porges, 2015). The last activity for each session was down-regulating to ensure an easy transition back into the child's normal routine (e.g., returning back to their

regular classroom or daily activities). An outline of each session is provided in Appendix F with the definitions of each activity provided in Appendix G. All the activities used in the sessions followed the Theraplay dimensions; structure (to promote safety, organisation and emotional regulation), engagement (to promote connection, optimal arousal and shared joy), nurture (to assist with emotional regulation self-worth and empathy) and challenge (to provide a sense of competence and mastery). By planning each session around these dimensions, the facilitators were able to ensure that each activity has a purpose and provides the child with a learning experience that will benefit their social and emotional development. It is common practice for GT interventions to gradually increase the number of nurture activities used over time (Booth & Jernberg, 2009). The timing of this increase is based on the responses of the children during the sessions. Facilitators will be able to make this decision by observing the children's responses whilst they engage in the nurture activities as well as using the 'Assessment of Child Progress' (ACP) measure for support (See Appendix H). As shown in Appendix F, the nurture activities were first increased during session 6. Although the majority of children responded well to these nurture activities, it was evident that this was too soon for a few of the children. This was shown by a reduced capacity to engage in the activity or withdrawing after a few minutes. As a result, the facilitators decided to drop back the nurture activities in session 7 and try again in session 8. For the remainder of the sessions, nurture activities were used frequently.

Rules of Theraplay.

Each session was organised around the four group rules of Theraplay: no hurts, stick together, have fun and the leader/facilitator is in charge (Booth & Jernberg, 2009). The 'No hurts' rule transmits the nurturing aspect with the intention of communicating that giving or receiving a hurt is an undesirable sensation. The structural aspect of Theraplay was shown through the 'stick together' rule endeavouring to engage all members of the group together. By using a rule specifically focusing on having 'fun', members were reminded of the playfulness and engaging nature of Theraplay. The fourth rule is generally an unspoken rule which is enforced through the facilitator providing clear structure and direction often through statements as opposed to questions. For example, 'It's time to start' rather than 'shall we start?'. However, it may be the case that towards the end of the intervention, children may have more choice over what games/activities they prefer.

The first three rules were introduced in the first GT session and reinforced at the beginning of each session and throughout the remainder of the sessions as needed. In the first session, the facilitators discussed with the children what the rules were and what they meant. Examples of each were also given to ensure the children understood. These rules were reinforced during the session when the facilitators noticed any deviation from the rules. For example, if children were disengaged and walking away from the group, the facilitator would remind the group of the 'sticking together' rule. The communication of these rules was enhanced through the use of actions which all children and adults in the group did together. The 'no hurts' rule was shown by making a cross (X) with both arms (to symbolise 'no', followed by touching the outside of the arms. The action for 'sticking together' was the interlocking of the left and right hands together and 'having fun' was shown by waving the hands.

Key activities.

In addition to the four core Theraplay rules (Booth & Jernberg, 2009), two key activities were included at the start and finish of each session. The 'check-ups' and 'food share' were included in each session in this intervention. Check-ups involve the adults in the group individually recognising and showing care for each child. This was done by acknowledging the child, checking how they're feeling and being attentive to any 'hurts' a child may have such as cuts/scrapes. To acknowledge the child's potential 'hurts' a nurturing aspect of using moisturiser or cotton wool on the child's hands was used. The check-ups allowed for the children to receive positive nurture without having to ask for it.

At the end of each session, each child would share a treat (e.g. potato chips) regardless of whether the session had been successful or not for each child. The experience of being fed by someone creates a nurturing and trusting relationship (Perry, 2001). If the child did not want to be fed the chip, they were allowed to feed themselves with the view that they may try again in the next session. During this time, small challenges were given to the children such as 'I wonder if you can eat this chip in 3 bites' or 'I think you can nibble this chip really slowly' thus allowing the children to feel a sense of accomplishment at the end of each session. The food share also promoted shared joy between the children and facilitators within the group.

Theraplay Measures.

Assessment of Child's Progress in Theraplay.

An additional measure, the 'Assessment of Child's Progress in Theraplay' (ACP) (Booth, 2016) was completed after each GT session. The facilitators completed this measure for each child within the group by discussing their participation during the GT session. During the sessions, the children were not limited to one adult/facilitator. Although the child would generally complete the activities with the adult they were seated near, if they wished to complete an activity with a different adult, they were free to do so. Thus, it was important to include all of the facilitator's perspectives and assessment of the child's progress. This collaboration was also helpful to ensure that each facilitator perceived behaviours in a similar way promoting the fidelity of the treatment effect. The measure included 10 positive behaviour statements measured on a five-point Likert scale (1= Never, 3 = Sometimes, 5 = frequently) and 5 negative behaviours reverse coded on the same five-point Likert scale. A high score on both the positive behaviour and negative behaviour questions indicates that the child has engaged in mostly positive behaviours within the session. This measure allows the facilitators to follow each child's engagement and interactions throughout the 10 GT sessions.

The data obtained from the assessment of the child's progress was used by facilitators to prepare the following sessions if a collective low score was found across all children and associated with specific activities within the session. For example, if a session had multiple 'nurture' activities, such as hand massage or pass a squeeze (see Appendix G for activity definitions) and a child or children showed more 'negative behaviours' such as withdrawing from the group or becoming verbally or physically aggressive with peers, this was noted and the following session may not have included nurture types of activities. It is generally the case that children will become more accepting of the nurture activities as the group progresses (Booth & Jernberg, 2009). This is due to the child feeling more comfortable and safer with the adults and children in the group over time. A strength of using this measure is that it allowed facilitators to identify whether the child is engaging in negative behaviours because of the specific activity or the group dynamics, by starting a new activity from a different dimension (nurture, structure, challenge, engagement) and noting if the child's behaviour changes.

Fidelity Measure.

A fidelity checklist was also used after each session to ensure that the facilitators included all of the 27 essential components (shown in Appendix I) of the GT intervention (Booth & Jernberg, 2009). This required a rating of 'Always', 'Sometimes' or 'Never' on 12 GT components relating to how the session was planned (e.g., inclusion of a song or choice of activity) and 15 GT characteristics relating to the child's interactions within the session (e.g., established eye contact or inclusion of all participants). There was also a space for facilitators to add qualitative comments about the session. A copy of this checklist can be found in Appendix I. The fidelity checklist was completed collaboratively by the 4 facilitators at the end of each session. Recording which aspects were used or not used within the session allowed the facilitators to evaluate their own intervention practice and their engagement within the intervention. Although the ratings should have been marked as 'always' for every component, where there was any ratings of 'sometimes' or 'never', a discussion would take place to consider ways in which the following intervention sessions could be improved and these mistakes resolved. It was also important to complete this fidelity measure to ensure that there was no personal bias from the facilitators as each member had an interest in the organisation and GT.

All components/characteristics that needed to be included in each session were recorded as 'always' in the sessions with the exception of sessions 1, 5 and 6 where a few components/characteristics were recorded as 'sometimes.' However, this had no noticeable effect on the results of each child's progress from each session. Examples of the components/characteristics that were 'always' used are, 'leader provides individual welcome and acknowledgement of each participant' and 'adults attempt to keep children engaged in games/activities. The components/characteristics that were marked as being used 'sometimes' were mostly based around transitions and choice of activity. Each statement marked as 'sometimes' is listed below for sessions 1, 5 and 6:

Session 1

- 'Leader plans for/structures the transitions between activities'
- 'Leader transitions children out of the group and into the next activity'

Session 5

- 'Leader plans for/structures the transitions between activities'
- 'Leader transitions children out of the group and into the next activity'

- ‘Games/activities include all participants’
- ‘Adults establish eye contact with children’

Session 6

- ‘Leader plans for/structures the transitions between activities’
- ‘Leader transitions children out of the group and into the next activity’
- ‘Does the group plan and/or execution/implementation match the therapeutic goals/objectives of the group?’
- ‘Leader chooses/structures the activities’
- ‘Group includes appropriate challenge activity’

As three of the children were being transported back to school/home after the GT sessions, this made ‘transitioning the children out of the group and into the next activity’ difficult as the parents/caregiver may have been late or needed someone else to transport their child. The researcher and facilitators were not privy to this information before finishing the session therefore on some days did not know where the child should be taken upon finishing. The three children staying within the residential setting were able to be transitioned back into their next activity.

Procedure

Recruitment & Participant Consent.

Stand’s regional Manager was approached in person by the researcher to see the feasibility of working alongside the social workers and children under their service. Due to the sensitive nature of this topic, the decision to allow this study to be conducted was made in collaboration with the team leaders from both the residential and social work sectors of the organisation. Recruitment was initiated by a social worker within the organisation. The social worker identified children/families as potentially meeting the inclusion criteria.

The social workers were able to identify potential participants by using information that had been received through the referral form on entry to the organisation, disclosures from the children and/or teachers, or other conversations/interviews with the families. Although Ethics approval was obtained to receive this information, the researcher was unaware of any information about the child and family’s circumstances until full consent had been obtained. A detailed information sheet and consent form (Appendix J) were sent via email or post to invite

parents/whānau to take part in the study. The families were then able to contact their social worker or the researcher to receive more information. Once informed consent had been received from parents, the child's teacher was also invited to participate in the research study. Assent was gained from each child once parental consent was obtained. This was achieved by using a child-friendly version of the consent form (see Appendix K). Participation was voluntary and the children and parents were free to withdraw from the study at any time. If a child withdrew from the study, the researcher removed any information and data related to the child. The identity of the participants was kept confidential at all times with any information/data on the child kept in a locked filing cabinet and password-protected computer. For this research, all children provided assent to participate and no children were excluded.

During the recruitment process, I experienced many challenges and barriers. These predominately were a result of conducting research with at-risk populations, where consultation and approval from numerous stakeholders were required before the study could commence. The initial recruitment attempt was interrupted when the lead social worker making contact with the families had struggled to recruit participants and stopped engaging with the researcher. Therefore, other arrangements had to be made and the recruitment process was restarted. This involved contacting other social workers that would be able to find families that fit the criteria for inclusion in this research. However, despite having positive ongoing relationships with the clients/families, regular contact is often difficult for the social workers, as many families do not want to engage at all times. This resulted in the recruitment process taking significantly longer than expected. Even when the families had chosen to participate in the study, it was difficult to get in contact with the families, especially as a researcher who they are unfamiliar with. The methods of contacting the families also added to the challenge as families each had different methods of contacting e.g. Email, phone call, or post.

These challenges I experienced with recruitment are considered common when conducting research with vulnerable, at-risk populations (Goddard & Mudaly, 2009) and this may explain why there is limited empirical evidence available that includes school-age children who have experienced CT. Despite these challenges, I persevered through the recruitment and data collection phases and was able to adapt the research plan in order to accommodate some of the challenges I experienced. This included, allowing extra time to build rapport and contact families as well as changing the start dates of the intervention to ensure all facilitators/practitioners were able to be involved.

Pre-Measure.

A Strengths and Difficulties Questionnaire (SDQ) (Goodman, 1997) was filled out for each of the children by their primary caregiver one week prior to starting the intervention. The questionnaire was filled out in relation to the behaviours of their child in the past 6 months. The SDQ was sent to the family via email, post or delivered by their social worker.

Pre-Intervention/Room selection.

In preparation for the intervention, several rooms were viewed before deciding the most suitable room to implement the GT sessions. The suitability was based on size, the number of other objects in the room, and privacy. As previously discussed, the room needed to be large enough to fit all the children and facilitators, however small enough to promote a secure and safe space. It was also important that there were few or no other objects (e.g. toys, posters or computers) in the room to distract the children (Booth & Jernberg, 2009). The intervention space was located within close proximity to the classroom, offices and dining room, therefore a room distanced from these noises was chosen to ensure the participants and facilitators could focus on the activities delivered during the intervention with little distraction. This privacy also benefitted the children within the intervention by allowing them to make as much noise as they liked without the potential for embarrassment from other peers listening in.

Transition into Group Theraplay.

Before the start of each session, all children were gathered together in a quiet space with the researcher whilst the main facilitator and supporting facilitators prepared the room. Typically, one might expect the intervention or setting to be prepared before children arrive, however, the start of each GT session was designed to reflect a transition. In this case, a transition from school/other activity to the GT session. To start the session, the researcher (in collaboration with the other facilitators) would choose a specific way of moving towards the location of the room. This included developmentally appropriate actions such as being astronauts whilst going up in a spaceship (elevator). In addition to gathering all the children together, this allowed for a fun exit from one activity to the GT session. Whilst the researcher and children were entering the room, the other facilitators were also able to address and praise the children for their positive actions and behaviours and welcome them by noticing each of them individually. Once everyone was seated and comfortable, the children and facilitators sung a waiata together.

Post-measure.

Two weeks after the completion of the GT intervention, primary caregivers were asked to complete the SDQ questionnaire for a second time. The post questionnaire was the same as the pre-intervention questionnaire however asked parents to answer based on their child's behaviours in the past 2 weeks following the intervention. This allowed for potential changes in each child's strengths and difficulties pre and post GT intervention to be identified.

Duration of Intervention.

The GT intervention took place over 4, 30 to 40-minute group sessions per week for the duration of 2 weeks followed by 2, 30 to 40-minute sessions in the third week. The duration of each session varied depending on the speed the children completed the activities and how well they were coping individually and as a group. The ratio of adults to children was 1 adult to 2 children which allowed the facilitators to respond and interact with the children more effectively by focusing on the specific needs of the child/ren.

Materials.

Across all sessions only 11 materials were used; moisturiser/hand cream, toilet paper, cotton balls, stickers, chips, balloons, straws, bin bag, soft toy, feathers, big/small cushions and plastic cups. However, other materials that can be used are listed with the activity descriptions in Appendix G.

Data Analysis

Strengths and Difficulties Questionnaire.

The small number of participants allowed each child's SDQ scores to be calculated by hand using the scoring document (Appendix L) downloaded from the SDQ website (Goodman, n.d.). With larger samples, mathematical procedures using SPSS calculations, or SDQ website calculations can be conducted. Transparent overlays were also downloaded from the SDQ website and printed using transparent paper were used for each subscale to assist in the hand scoring. As shown in Appendix M, these overlays provide an effective way to identify which items belong to each subscale. Once the scores were totalled for each subscale, the total difficulties score was calculator by adding together the emotional symptoms, conduct

problems, hyperactivity, and peer problems scores. The pro-social behaviour score is not included in the total difficulties calculation and this was calculated separately.

Once all pre- and post-intervention SDQ data had been collected from parents, and each subscale and total scores had been calculated, the data was inputted into SPSS. Other variables that were inputted in the SPSS data file include participant ID, gender, age, diagnosis, and what intervention the child received (i.e. Group Theraplay or Group Theraplay and Sunshine Circles).

Once all data was inputted into SPSS, descriptive analyses were conducted on the SDQ data for each child's total difficulties score and each subscale. Information regarding the number of sessions attended for each child were included in the descriptive information. A review of the total sample of children indicated that each child had different scores and trends within their pre and post data. The decision was made to examine each individual child's scores independently of the others to ensure I gained an understanding of the nuances between each child's experiences of the GT intervention.

To help identify each child's progress throughout the intervention, a table was created with pre/post scores for each subscale. This allowed for easier identification of whether the scores for each child increased or decreased. Once the information was consolidated, I was also able to analyse any links between the number of sessions attended and whether this had any effect on the scores. When analysing the SDQ data, both the pre and post scores were given a scoring category (see pp 34). This categorisation made it helpful to identify where the child's behaviours/strengths were at prior to the intervention and whether the intervention had an effect on these at a clinical level.

Assessment of Child Progress in Group Theraplay.

Similar to the SDQ, scores for the child progress measure were also calculated by hand. Scores from both the positive and negative behaviour scales were calculated and inputted into a results table. This was done for each session the children participated in. The scores from the negative behaviour statements were reverse coded before analysing any changes in the child's behaviours. Once all the data was included in the table, graphs were created for each child to track their progress across the GT sessions. This resulted in easier identification of any changes between the sessions which was compared with the session plans to find a possible explanation.

Two separate graphs were created which included all the children's scores, one for positive behaviours and one for negative behaviours. This made it easier to identify any abnormalities or points of interest in the data for each child and the cohort of children.

This chapter discusses the processes required to conduct a GT intervention with children who have experienced CT. The measures, processes and procedures used for recruitment, data collection and intervention facilitation are all described and presented to ensure the importance of each stage is understood for future researchers to replicate. The challenges of working with this population have been discussed and followed with the ways these were overcome and is an important reminder of the complexity of the whole focus of CT research and interventions. The following chapter focuses on the results of the study and provides the data used to be able to conclude whether a GT intervention is effective in improving children's behaviours as shown on the SDQ and ACP measure.

Chapter Four Results

The results section begins by describing some of the factors that may have impacted the quality of data collected for this project. The results are then presented for all participants then each individual child. Both graphs and tables are displayed to show changes in each child's positive and negative behaviours during the intervention. Pre- and post-intervention scores are also displayed to show changes in children's emotional symptoms, conduct symptoms, hyperactivity symptoms, peer problems and pro-social behaviours as measured on the SDQ. The results are discussed in response to the following research questions:

(1) Will a Group Theraplay (GT) intervention affect children's behaviours as measured on the Strengths and Difficulties Questionnaire (SDQ)? and,

(2) Did children who received Group Theraplay (GT) and Sunshine Circles (SC) make more progress compared to children who only received Group Theraplay?

Overall Group results

Assessment of Child's Progress in Group Theraplay.

For the purpose of analysis and interpretation of the results, the scores for the negative behaviours have been reversed. The lowest score of 5 on the negative behaviour scale indicates that no negative behaviours were used whereas a score of 25 indicates negative behaviours were frequently used. As shown in Figure 1, all children with the exception of child 6 engaged in more positive behaviours by their final GT session. Although there was no change in frequency of negative behaviours for child 1, Figure 2 shows that child 2, 3 and 4 engaged in less negative behaviours with children 3 and 4 showing no negative behaviours by the final session. However, child 5 and 6 were engaging in more negative behaviours at the final session with child 6 was engaging in negative behaviours more often than not.

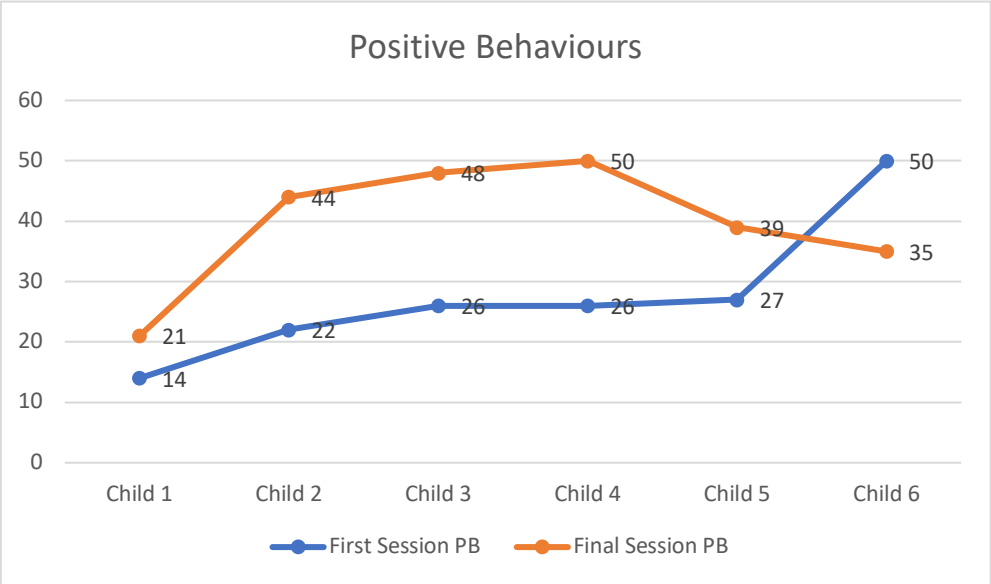

Figure 1 - Overall Group Positive Behaviours

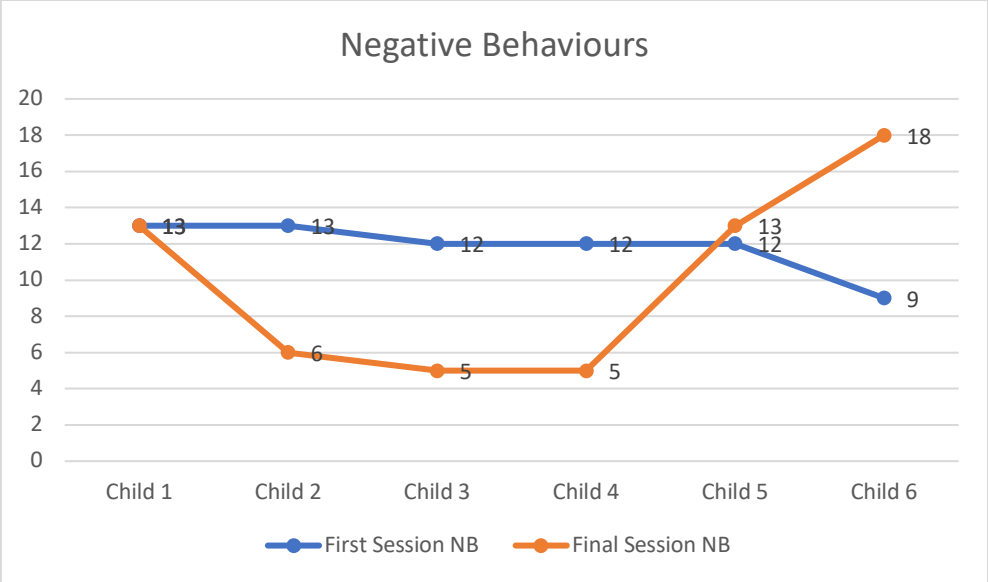

Figure 2 - Overall Group Negative Behaviours

As shown in figure 1, Child 3 and 4 who received both SC and GT had the highest positive behaviour scores by their final session. Neither of the two children engaged in any negative behaviours on their final session, with child 4 showed frequent engagement in the positive behaviours measured by the SDQ and child 3 was also frequently engaging in most positive behaviours. Child 2, who also participated in SC sessions in addition to the GT showed the third-highest score despite not attending the full number of GT sessions. These results were opposite for child 6 who began the sessions engaging in more positive behaviours and ended

the intervention using more negative behaviours. Similar to children 3 and 4, this child attended all 10 GT and SC sessions, so it is unknown to the researcher the reasoning behind this child's regression.

Children's Emotional and behavioural qualities.

For the six children we collected pre-intervention SDQ data for, the 'total difficulties' score was categorised into the 'abnormal' category for five of these children, with the other child scoring within the 'borderline' category. We recognise that children meeting the criteria for this study were already at high levels of abnormal behaviour which will be discussed further in the discussion as to why we would expect less significant changes in their pre and post SDQ scores.

Pre and Post SDQ scores for each child are shown in Table 6. Out of the six children who participated in the intervention, 4 questionnaires were returned. Child 1, 2, and 3 showed an increase in their 'Total Difficulties' scores with child 4 being the only participant who's score decreased for this subcategory between pre and post GT intervention. The scores for the emotional subcategory showed a reduction in emotional symptoms for two of the children, an increase for one and one child's score remained the same. The conduct scores also showed that the score for one child remained the same, with two children's scores increasing and only one showing a decrease in conduct symptoms. No changes were shown for any of the children in relation to their hyperactivity scores. The pre and post scores showed that 3 of the 4 children's peer problems increased with one remaining the same. Two of the four children showed improvements in the number of pro-social behaviours used from pre to post intervention, however one child used less pro-social behaviours and one remained the same. Because of the variability of the different types of intervention and data collected for each child, it is difficult to provide a global snapshot for this sample, therefore the remaining parts of the results section will provide the data for each specific child.

Child 1

Assessment of progress in Group Theraplay.

Although child 1 only attended five GT sessions, there was an increase in positive behaviours from the first session (14) to session 6 (21) (see Figure 3). During their first session, child 1 only showed evidence of frequently establishing eye contact. By the final session, child 1 was

engaging in more positive behaviours such as appropriately assertion with peers and accepting nurture when appropriately given. Interestingly, during the final session, this child's eye contact was less frequent compared to the first session. As shown in Figure 3, there was no change in the child's use of negative behaviours across sessions.

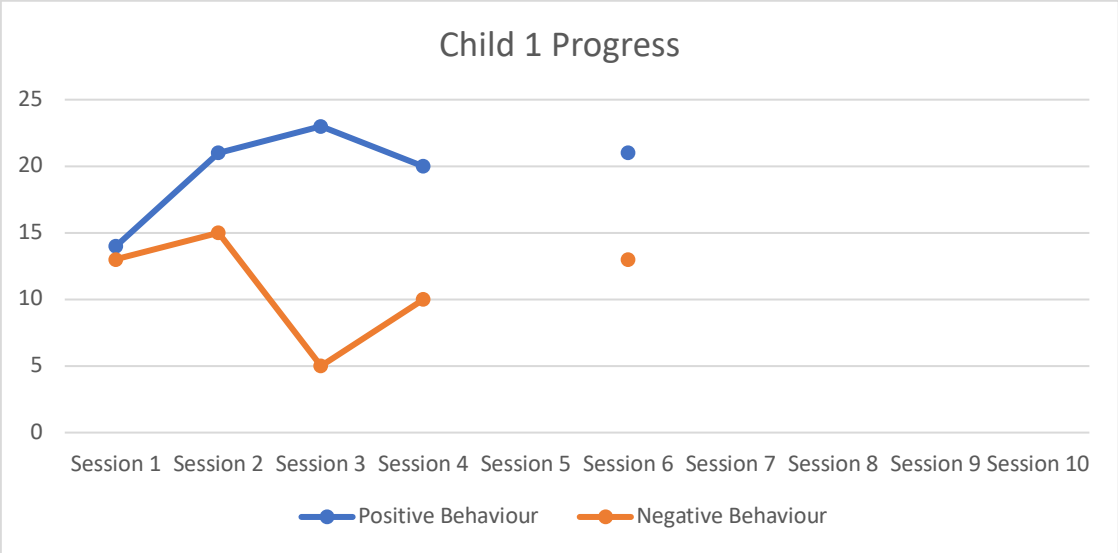

Figure 3 - Child 1 Assessment of Child Progress

Emotional and behavioural qualities.

The total difficulties score for child 1 increased from 'borderline' (16) at pre-intervention to 'abnormal' (19) at post-intervention. This child's scores on the peer problems subscale increased from pre-intervention (3 - borderline') and post-intervention (5 - abnormal'). The reported emotional symptoms, hyperactivity and pro-social behaviour scores for this child remained in the 'normal' category at both pre and post-intervention (see figure 3). The conduct scores remained in the abnormal range at both pre (7) and post (8) intervention.

Child 2

Assessment of Progress in Group Theraplay.

There was an increase in scores on the positive behaviour scale and a decrease in the negative behaviour scale for child 2 (shown in Figure 4). Child 2's positive behaviour score doubled between the initial (22) and the eighth, final intervention session (44). The child's negative behaviour scores also decreased from 13 to 6 indicating that this child displayed almost no negative behaviours in the final session. The only negative behaviour observed in the final

session was ‘attempts to boss adults/peers’ and this was marked less than ‘sometimes’. Figure 4 shows a dramatic increase in scores on the positive behaviour scale. During session 5, child 2 did not engage in 6 out of the 10 positive behaviours assessed and only briefly engaged in the other 4 positive behaviours. However, during their next session (session 8), the child was frequently engaging in almost all positive behaviours.

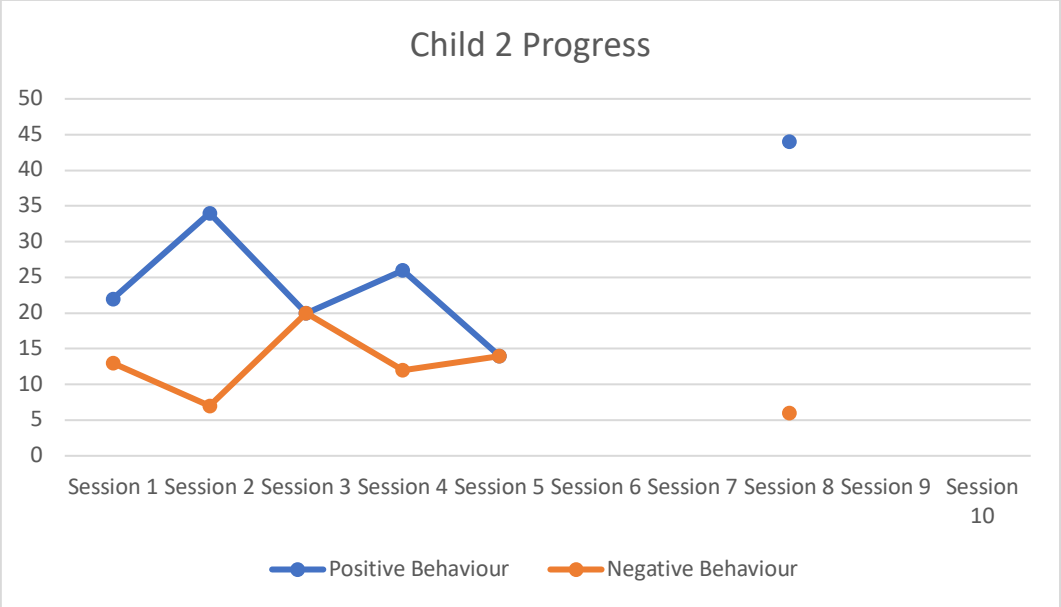

Figure 4 - Child 2 Assessment of Child Progress

Emotional and Behavioural Qualities.

The total difficulties score for child 2 stayed within the ‘abnormal’ category but increased between pre-intervention (26) and post-intervention (29). The emotional symptoms subscale score remained in the ‘abnormal’ category however the subscale score reduced from 8 to 5. Scores for both the conduct (7) and hyperactivity (8) subscales remained within the ‘abnormal’ category however the conduct score increased by 1. The peer problems score also increased by 1 which resulted in moving category from ‘borderline’ (3) to ‘abnormal’ (4). Pro social behaviours remained in the ‘normal’ category however increased from 7 to 8.

Child 3

Assessment of Progress in Group Theraplay.

The initial positive behaviour score for child 3 was 26 which increased to 48 by the final intervention session. Child 3 began the sessions by only occasionally using positive behaviours however by the final session was engaging in 8 of the 10 positive behaviours frequently with

the other 2 behaviours being used often. As shown in Figure 5, this child's use of negative behaviours was gradually reduced throughout the intervention to a score of 5, with 5 being the lowest possible score. Unlike the other children in this study, this child did not show an increase in negative behaviours during any of the ten session with the highest score remaining at 12. A score of 5 means no negative behaviours were used during the final session. This child's positive behaviours improved significantly in each session with their score increasing by a minimum of 7 from their initial score.

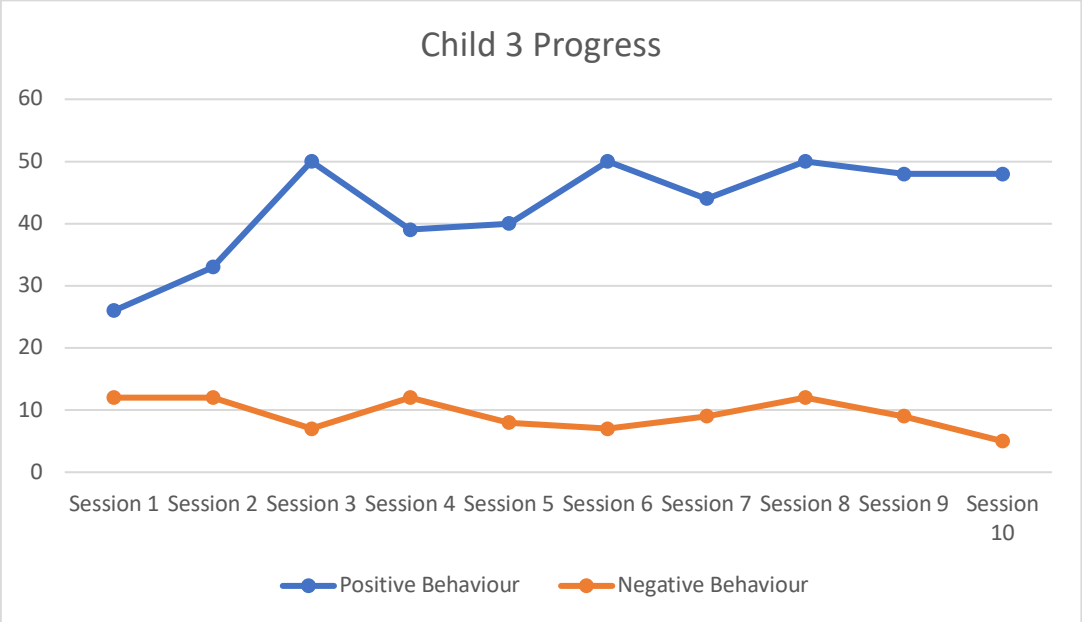

Figure 5 - Child 3 Assessment of Child Progress

Emotional and Behavioural Qualities.

The total difficulties for child 3 stayed within the 'abnormal' category however increased between pre intervention (19) to post intervention (21). The emotional subscale scores increased from pre intervention (3, 'normal') to post intervention (5, 'abnormal') suggesting that this child was displaying more emotional difficulties by the end of the intervention. The conduct (4), hyperactivity (7) and peer problems (5) subscales all remained within the 'abnormal' category with no changes in the subscale scores. Pro-social behaviours improved from pre intervention (7) to post intervention (8) and remained in the 'normal' category for both.

Child 4

Assessment of Progress in Group Theraplay.

The final scores for child 4 improved significantly from the initial session. A score of 26 for positive behaviours and 12 for negative behaviours was reported after the first session. By the final session, this score had increased to the maximum score of 50 for positive behaviours and decreased to the minimum score of 5 for negative behaviours showing the child engaged in only positive behaviours throughout the final session.

As shown in Figure 6, child 4 was using positive behaviours frequently during session 2 which then reduced significantly on both the positive and negative behaviour scales during session 3. This pattern is observed again during sessions 4 and 5. The negative behaviour scale increased from session 5 showing that during these sessions negative behaviours were being used more regularly. There was then another significant increase in the child's use of positive behaviours for the final 2 sessions. During the final session, this child did not display any negative behaviours.

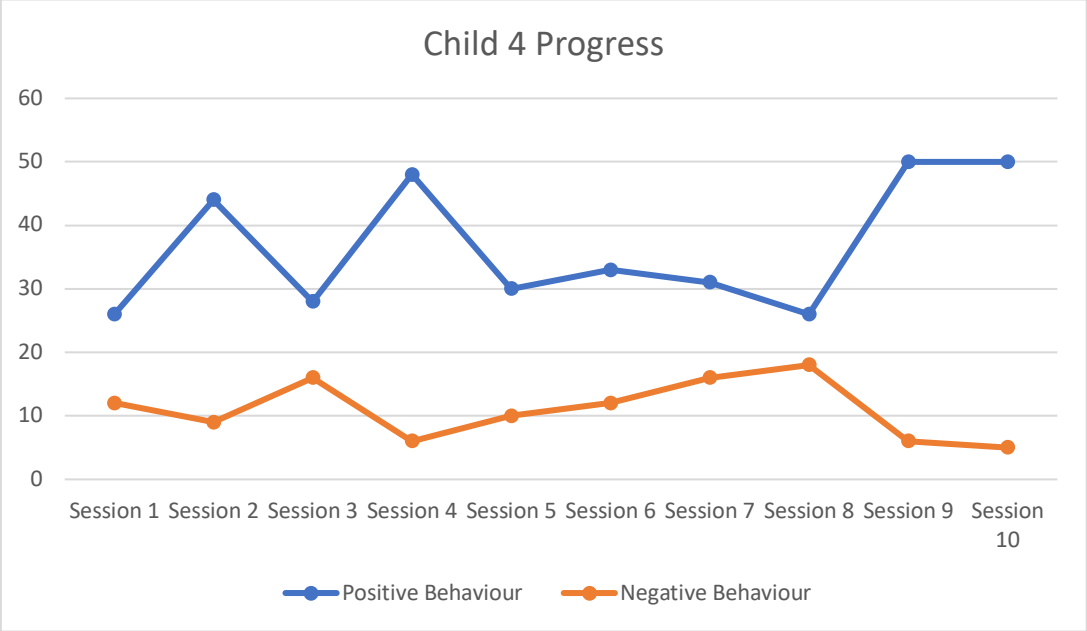

Figure 6 - Child 4 Assessment of Child Progress

Emotional and Behavioural Qualities.

Child 4's total difficulty score reduced from pre intervention (26) to post intervention (23) however stayed within the 'abnormal' category. A reduction in the child's emotional symptoms scores was shown from pre-intervention (5, abnormal) to post intervention (3, normal). The

conduct score remained in the 'abnormal' category however reduced from a score of 8 to 6. The highest possible score for hyperactivity (10) was shown at both pre and post intervention remaining in the 'abnormal' category. However, the child's score on the peer problems subscale increased between pre intervention (3) to post intervention (4) moving from the 'normal' category to the 'abnormal' category. Child 4's pro-social behaviour score remained in the 'normal' category however decreased from pre-intervention (8) to post intervention (6).

Child 5

Assessment of Progress in Group Theraplay.

Child 5's progress showed a slight increase in negative behaviours from a score of 12 to 13 showing they engaged in the listed negative behaviours 'sometimes' or less. There was also an increase in positive behaviours from a score of 27 to 39 between the first and last Theraplay sessions. By the last session child 5 was engaging in positive behaviours more often than not. Figure 7 shows an increase in negative behaviours between session 2 and 3 with these negative behaviours being used more often than not. However, the frequency of negative behaviours decreased again on attendance of the next/final session (session 7).

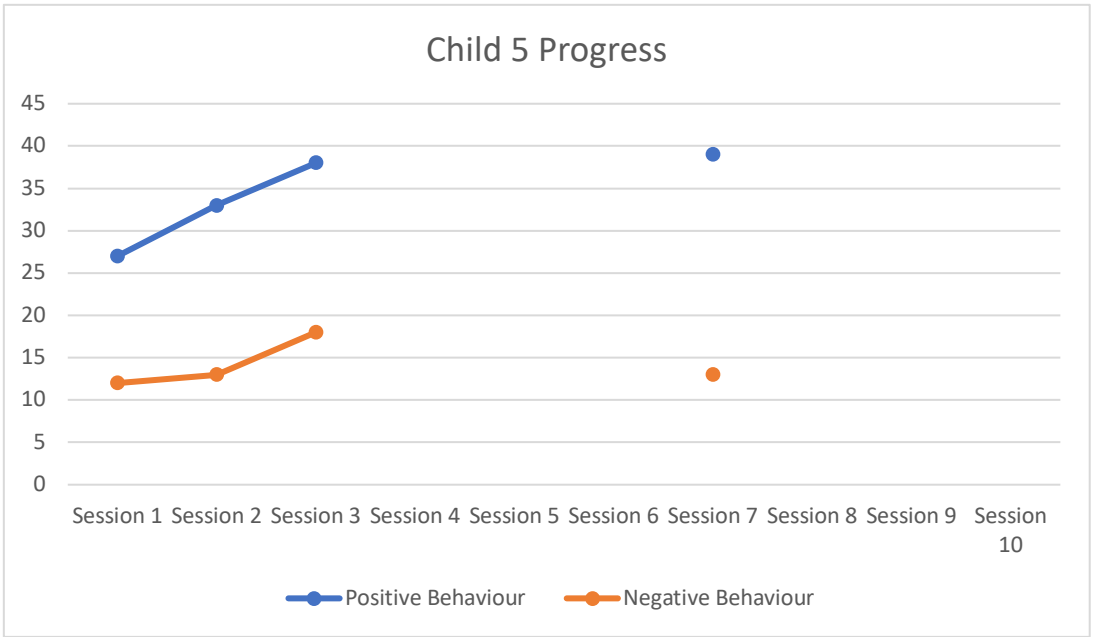

Figure 7 - Child 5 Assessment of Child Progress

Emotional and Behavioural Qualities.

As there was no response from the family, the post questionnaire data from this participant was not able to be collected. Therefore, only pre-intervention data has been reported. Child 5's total difficulty score of 24 is representative of the 'abnormal' category. This 'abnormal' categorisation was also shown for the emotional (5), conduct (8), and hyperactivity (8) symptoms subscales. For peer-problems the child's score was within the 'borderline' category (3) whereas the pro-social behaviours score was in the 'normal' category (8).

Child 6

Assessment of Progress in Group Theraplay.

The initial score for child 6 was 50 with this being the highest score possible for positive behaviours. There was a gradual decrease in positive behaviours between session 1 and session 10. As can be seen on Figure 8, the exception to this was session 3 where the score dropped significantly to a score of 27. This shows that child 6 engaged in the assessed positive behaviours 'sometimes' or less. The negative behaviours were shown to increase in frequency from a score of 9 to 18. This child began the sessions very rarely engaging in negative behaviours however by the final intervention session child 6 was using negative behaviours more often than not. Based on this assessment of progress measure, this child showed an opposite trend to the other children with their behaviour becoming progressively more negative during the intervention.

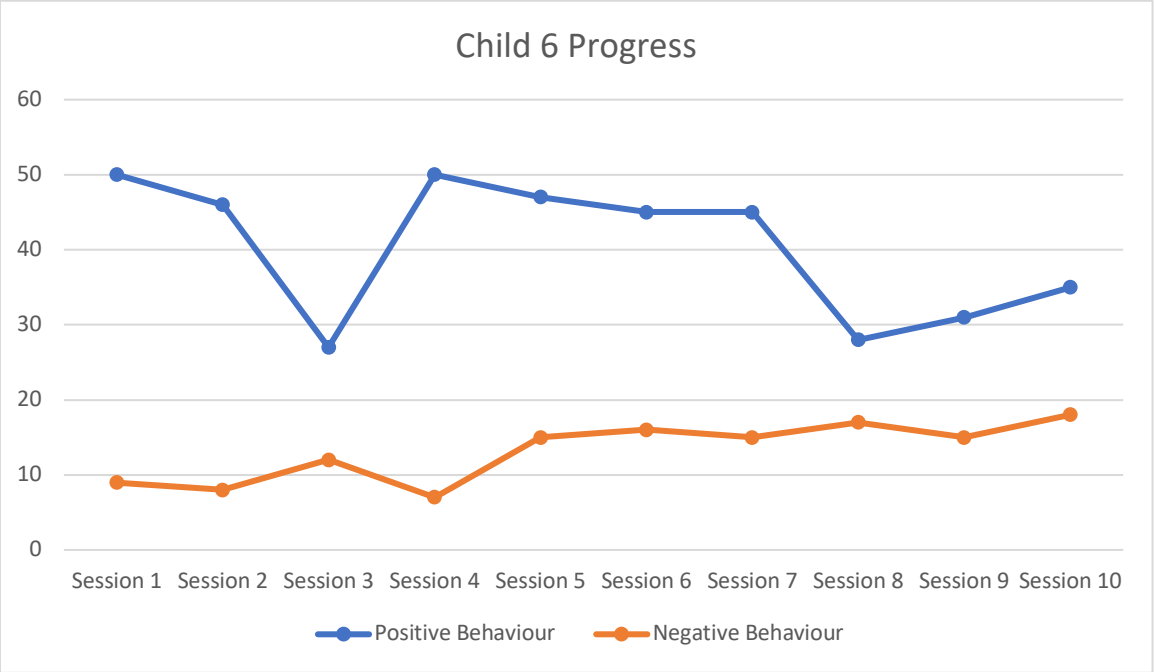

Figure 8 - Child 6 Assessment of Child Progress

Emotional and Behavioural Qualities.

Similar, to child 5, only pre-intervention data was available for child 6. The total difficulties score of 25 was in the abnormal category. Emotional symptoms fit in the 'borderline' category (4), however scores for conduct (8) and hyperactivity (8) were on the higher end of the 'abnormal' category. Peer problems (5) was also categorised as 'abnormal' however was nearer the lower end of the scale. The pro-social behaviour score (7) was shown to be 'normal'.

Summary of results

The aim of the study was to determine whether a GT intervention was effective in improving children's behaviours as shown on the SDQ and ACP measure. It was also the intention to see whether participating in SC in addition to GT had any additional benefit. Overall the results indicated that the intervention had a positive effect on increasing positive behaviours throughout the sessions for five out of the six children. The results demonstrate that the three of the four children who received both SC and GT interventions engaged in the most positive behaviours by the final session regardless of how many sessions attended. Although increases were noted for the participant's behaviours using the 'Assessment of Progress in GT' measure, the results from the SDQ indicate an increase in behavioural difficulties with three out of the

four participants showing a greater number of 'Total Difficulties' shown in the pre- and post-intervention scores. These children all received varying amounts of GT and SC. Child 4 who attended all GT sessions and all except one SC, was the only participant to show a decrease in their 'total difficulties' score as measured on the SDQ. However, child 4 was also the only participant who engaged in less pro-social behaviours post intervention.

Table 5 - Pre/Post SDQ Scores

	Child 1	Child 2	Child 3	Child 4
Gender	Male	Male	Male	Male
Age	9	11	11	8
Diagnosis	ADHD/ODD	Anxiety/ODD		ADHD
Pre SDQ Total	16	26	19	26
Post SDQ Total	19	29	21	23
Pre Emotional Problems Score	1	8	3	5
Post Emotional Problems Score	1	5	5	3
Pre Conduct Score	7	7	4	8
Post Conduct Score	8	8	4	6
Pre Hyperactivity Score	5	8	7	10
Post Hyperactivity Score	5	8	7	10
Pre Peer Problems Score	3	3	5	3
Post Peer Problems Score	5	4	5	4
Pre Pro-social Behaviour Score	6	7	7	8
Post Pro-social Behaviour Score	6	8	8	6

Chapter Five Discussion

The purpose of this study was to see if a GT intervention was effective in improving children's behaviours as measured by the Strengths and Difficulties Questionnaire (Goodman, 1997). A subsequent aim was to see if receiving both GT and SC was more effective than GT alone. This study was also an opportunity to explore whether GT can be used with children who have experienced CT in their first three years of life.

Six children took part in the study and received varying amounts of GT and SC over a two-week period. Caregivers completed a questionnaire before the intervention and a follow-up questionnaire two weeks after the intervention. Unexpectedly, the majority of the children showed an increase in negative behaviours post-intervention. Further, half of the children showed an increase in their pro-social behaviours post-intervention. Some children demonstrated no changes in their negative and pro-social behaviour post-intervention. Possible explanations for these finding will be described in this chapter.

Overall findings from the SDQ

The results of this study did not fully support the first hypothesis that GT is an effective intervention to improve negative and pro-social behaviours for children aged 8 to 13 years who have experienced CT. Results from the SDQ showed an increase in the total difficulties scores for three of the children in this study, with only one child showing improvement in their total difficulties score. This finding is consistent with Francis et al. (2017) who also found an increase in total difficulties scores for children with similar difficulties to those with CT, however, these children participated in an individual Theraplay intervention. In comparison to this study, Francis et al. (2017) chose to use individual Theraplay for the children who were experiencing complex difficulties (i.e. they had a high SDQ score) and a GT intervention for children with mild difficulties (i.e. they had a low SDQ score). They found significant improvements in friendships of the children in the GT, suggesting that GT interventions may increase attachment relationships for children who experience mild difficulties in their behaviour. This, however, may only be true for children with less complex needs. As children who have experienced CT have difficulties with feeling safe and secure (van der Kolk, 2005), the children in the current study, in addition to the children receiving individual Theraplay in Francis et al. (2017) study may have required a longer intervention to allow time to feel safe before improvements in their relationships and behaviours could be observed and measured.

This finding may suggest that both individual and GT do not differ in the effectiveness of improving children's behaviours when a high total difficulties score is shown pre-intervention.

Despite three of the children showing an increase in their total difficulties score, there was also a reduction in the scores for at least one of the subcategories of the SDQ for two of these children. Both children showed an increase in the use of pro-social behaviours on completion of the intervention with one of these children also showing a significant decrease in emotional symptoms. Thus, only one child in this study showed no improvements when all subcategories were considered. Wettig, Coleman, and Geider (2011) found similar improvements in children with behavioural and language disorders based on their symptoms of social inhibition and anxiety after a GT intervention. These children also had a significantly higher pre-intervention score, similar to the children in this study however, they showed a greater decrease in behavioural problems post-intervention compared to children in the current study. Although the behavioural attributes of the children studied by Wettig et al. (2011) were similar to those in the current study (i.e. they had inattention, emotional, and relationship problems), the children in Wettig et al's (2011) study were significantly younger than the children in the current study which may suggest that GT intervention may be more effective at reducing behavioural problems in younger children. However, the number of GT sessions used by Wettig et al. (2011) was also much higher (n = 18) than the 10 sessions used in the current study which may suggest that longer intervention may be required for effects and change in behaviour to be noticed. This is supported by the trauma-focused approach and attachment theory which states that repetitive and consistent positive experiences, over a long period of time, are needed to build trusting relationships with others (van der Kolk, 2005). Thus, the children in this study may have benefited from more time to build these positive attachments with the facilitators for the intervention to be more effective.

Group Theraplay vs Group Theraplay and Sunshine Circles.

Some children in this study who participated in the GT intervention also participated in SC. This provided an opportunity to see whether there was greater improvement in positive and negative behaviours of children if they participated in both GT and SC or GT alone. It was found that children who attended both SC and GT showed the greatest improvements in their positive behaviours as measured on the ACP compared to the children who received GT only. Using data from the ACP measure, it was evident that receiving both SC and GT had a greater

effect on positive behaviours compared to GT only. This finding was shown regardless of the number of sessions each child received except for one child who received the full 10 sessions of both GT and SC and showed a decline in positive behaviours. Although it may be suggested that these improvements in behaviour were a result of the double dose of Theraplay these children received, these children also received the most GT sessions with few children. Thus, each child may have received more intensive interactions with both the facilitators and the children during each GT session.

As GT can be used with groups of varying sizes, the adult to child ratio is often dependant on the availability of facilitators. For this study, it was planned that each facilitator would support one or two children at a time. This adult-child ratio was chosen to ensure that each child was able to receive more intensive interactions and have more positive experiences to enhance attachment and trust. In sessions where there were only three children, these children received one on one support and interaction, with additional engagement from another facilitator. Thus, the more individualised interactions during these sessions could potentially have mirrored the highest tier of Theraplay where the aim is to target specific behaviours to promote change. The two children who received GT only showed the least improvements in the use of positive behaviours. However, these children attended half or less of the sessions and may not have benefited from the one on one support and interaction from the facilitators that other children received.

Emotional Symptomology.

Emotional symptoms data, gathered from the SDQ for each child in this study, supports research that interventions with a focus on emotional regulation are effective when working with children who have experienced CT (van der Kolk, 2005). The number of emotional symptoms reported for half of the children decreased on completion of the GT intervention, supporting research that GT may lead to an improvement in children's ability to regulate their emotions and thus potentially reduce internalising problems. The pre and post data collected for these children suggests that both males and females who have experienced trauma are susceptible to higher internalising behaviours (as measured by their emotional symptoms score) and therefore it was expected that they would benefit from relationship-based interventions such as GT. The use of up-regulating and down-regulating activities within the intervention allowed children to practice and experience the transitions from being fast and

active to slow and relaxed. This is considered an important activity in teaching children how to regulate their emotions during everyday familiar activities.

In addition to the importance of up-regulating and down-regulating activities, identifying and understanding emotions is particularly important for children who have experienced CT. Many children with these experiences have difficulty identifying and expressing their emotions which results in behaviours that are seen as overreactive or unpredictable (van der Kolk, 2005). By using the trusting relationships formed between children and facilitators during GT, children can learn about appropriate responses to their emotions and thus improve their self-regulation and emotional problems. In addition to the focus on emotional regulation, the facilitators ensured that emotions were acknowledged and identified throughout each of the intervention sessions. The positive attention and care shown by the facilitators may have scaffolded a strong, trusting relationship between child and facilitator and allowed for more changes in emotional symptoms to be noticed. This is supported by (Siu, 2009) who suggested that the relationships established and supported in GT may also help children feel that they are capable of being loved and valued and thus increase a child's emotional regulation, self-esteem and trust in people.

Before the GT intervention, all of the children's pro-social behaviours scores were in the normal category. Upon completion of the intervention, pro-social scores were shown to improve for most of the children with only one child showing a decrease after completing GT intervention. These results support research that suggests increases in pro-social behaviours are related to the cooperative and trusting environment in which the children were provided during the intervention (Munns, 2000). Improvements in pro-social behaviours have also been shown in children who have participated in SC used in school classrooms (Tucker et al., 2017), suggesting that both SC and GT may promote some children's use of pro-social behaviours, particularly when the intervention is delivered within group settings. Unexpectedly, the current study showed a decrease in pro-social behaviours for one child who received the most sessions of GT and SC.

Peer Problem Behaviours.

All children in this study showed an increase in peer-problem behaviours from pre-to-post intervention based on their SDQ scores. This finding contradicts data collected from the ACP

which indicates that most children showed an increase in positive behaviours related to peer interactions such as playing cooperatively with peers and being appropriately assertive. Although both measures assess children's peer relationships, the SDQ collects data on aspects such as whether the child is generally liked by others, whereas the ACP measure assess aspects such as being overly competitive with peers. This may be one reason for the lack of agreement across both measures of peer problem behaviours.

As the measures were completed in different environments and by different respondents (i.e the SDQ was completed by the parents and ACP by the facilitators) the observations and ratings may be specific to each setting the respondent observes the child in. The differences found between each informant shows the importance of using multi-informant approaches when collecting information on a child's behaviours. For instance, parents might not have the opportunity to observe their child's peer interactions and relationships as often as teachers or in this case, the facilitators of the intervention (Craig & Pepler, 1998). Therefore, different results may have been noted, specifically for peer problems, if the SDQ was completed by teachers in this study.

Conduct Problems.

Similar to the peer problems subcategory, all four children showed 'abnormal' levels of conduct problems as measured by the SDQ prior to the intervention, with three of these children's scores being towards the higher end of this category. However, the ACP showed that children rarely engaged in negative conduct behaviours such as physical or verbal aggression during the intervention. Although no obvious conduct behaviours were noted by the facilitators throughout the intervention, it is important to note that the children had the choice of whether or not to participate in the GT activities. This may have reduced any opportunities for defiance or conduct related behaviours as the child had autonomy and control over their participation. The facilitators were also trained to notice any behaviours that may escalate and cause disruption for the group. Therefore, it is possible that the facilitators were able to regulate the child's emotions before a reaction occurred.

Although high levels of conduct problems are considered in children with CT (Bernhard, Martinelli, Ackermann, Saure, & Freitag, 2018), two of the children in this study also had a diagnosis of Oppositional Defiant Disorder (ODD). Treatments of conduct issues often involve psychosocial interventions (Hinshaw & Lee, 2003), However, research has also shown the

importance of peer-influence and emotional regulation in order for conduct levels to be decreased (Havighurst et al., 2013). Although, GT has a strong focus on emotional regulation through the use of its structured and targeted activities, the intervention needs to be repetitive and ongoing for the child to understand and learn effective ways to manage their emotions and their responses to these emotions. Thus, in addition to the new peer interactions that these children were experiencing and the low emotional regulation skills, conduct responses may remain high when measured within a short timeframe.

Developmental age vs Physical age.

As noted earlier, one child who received the highest number of GT and SC sessions, was the only child who did not show improvements in their pro-social behaviours, however this same child was the only one who showed a decrease in their total difficulty score. This could have been due to the child's age as they were the youngest in the intervention group. Research on play therapy suggests that the needs of preadolescents and older children are different from those of young children and thus materials and activities should be adapted to suit these children (Bratton, Taylor, & Akay, 2014).

Although Theraplay activities are aimed at lower developmental ages, the core aspects underpinning the activities and experiences in the sessions can be beneficial for children of all ages who have experienced trauma. However, the difficulty of the activities (e.g. challenges) may not have been matched to the children's individual strengths during each activity in the sessions. For example, regardless of developmental age, a 13-year-old boy may need a harder version of an activity than an 8-year-old. Although the facilitators were able to read the children and notice where they were presenting developmentally, it is important to note that developmental age is a fluid process and children can move through different developmental ages according to the physical, emotional and cognitive aspects of an activity. For example, one activity could potentially trigger the child which may result in their emotional developmental age to drop to a three-year old's needs yet the next activity could bring their developmental age back up to align with their chronological age. Due to the complexity of children's developmental age, the facilitators may have missed opportunities to change and adapt the activities to suit the needs presented at the time.

It is also possible that the children in this study had significantly different developmental ages which may have impacted the results of the intervention. Although measures were not taken to identify whether the child's physical, social, emotional and cognitive abilities were in line with their chronological age, the facilitators were able to identify the varying maturity of some children, in particular when engaging in nurture activities. When using nurture activities in GT, the interactions are intended to mimic the relationships and bonds formed during the early years. If a child had not experienced positive feeding and care as an infant, they may regress to infant-like behaviours when shown this form of nurture (Booth & Jernberg, 2009). Thus, knowing the timing of a child's trauma allows for interventions, such as GT, to be matched correctly. Based on the Neurosequential model, regression to these infant-like behaviours is essential for the brain to be repaired from the bottom up (Perry, 2006). According to this model, the primitive brain, which is responsible for safety, needs to be addressed before any other parts of the brain are able to function effectively. This is done by creating a sense of safety for the child by using nurture activities and positive relationships to build trust.

Gender differences.

In this study, all the male children showed improvements in their positive behaviours such as playing cooperatively with peers, turn-taking and using appropriate touch with both peers and adults. This was not the case for the single female child who engaged in less positive behaviours and more negative behaviours such as attempting to boss other children and adults and being overly competitive during the activities. This finding may align with findings that boys and girls adapt to trauma exposure differently, affecting the expression of their trauma-related difficulties in addition to their response to intervention (Sherin & Nemeroff, 2011). Research has also shown that although both girls and boys often respond to trauma with anger and dissociation, girls experience more depressive and anxious symptoms compared to boys (Foster, Kuperminc, & Price, 2004). More recently, researchers have found gender differences in the brain structures of individuals that have experienced trauma early in life. An area of the brain related to people's emotions and awareness was found to be smaller among girls and larger among boys when compared to a control group with no trauma symptoms (Helpman et al., 2017). These research examples may help us understand the significant difference in the use of positive and negative behaviours found between the female and male children who received the intervention in this study. Thus, it is recommended that future research explores differences in how males and females display difficulties and feel about their trauma

experience and use this information to direct intervention. If a child discloses information that suggests they may feel anxious or uncomfortable around males, the intervention could be adjusted to include female children only.

Some research also suggests that a focus on social connections in a relationship is particularly important for girls (Piller, Gibly, & Peled, 2019). This is supported by the view that females tend to see themselves "in relation to the world" rather than "distinct from the world" (Chodorow, 1978; Miller, 1986). Research has also shown that females are more sensitive to oxytocin levels when experiencing positive social interactions (Borland et al., 2019). However, it is unknown whether social connections from other female peers would have improved social connections for the female child in this study, over and above the social connections developed with the female facilitators. As there was only one female participant in this study, each session included predominately boys, with the exception of the facilitators who were all female. It is possible that this made it more difficult for the female child to relate to the male children and she may have felt uncomfortable being surrounded by boys, despite the facilitator's best efforts to include each child in the activities equally. Although each GT activity is designed to be applicable for both males and females, it is possible that the facilitators could have ensured that there was a stronger female focus during the activities. For example, during the 'imaginary toss' activity, the facilitators could have included a stereotypically female example to promote balance.

As there was only one female participant it is not possible to examine potential gender differences or generalise the results to other females and further research would benefit from ensuring that a sufficient number of boys and girls are recruited to participate in a GT intervention, to allow for more meaningful gender comparisons.

New Zealand Applicability.

As this was the first study of GT to be used within New Zealand, it is important to note the feasibility of the intervention. Although research in other countries have found Theraplay has good cross-cultural applicability (Siu, 2008), the New Zealand population, specifically Cantabrians may differ in the way they respond due to a large number of traumas, such as natural disasters they may have experienced, in addition to their interpersonal trauma. The Canterbury earthquakes in 2010/2011 resulted in significant disruptions and loss for many

children and their families. In addition to the environmental changes, financial hardship, separation from family and friends and changes in children's home and school lives, the emotional distress caused by these earthquakes were extended over several months as a result of the aftershocks (Freeman, Nairn, & Gollop, 2015). Also, the Kaikoura quake in 2016 may have also re-traumatised many individuals who were beginning to heal from Canterbury quakes. Research has shown that there is an increase in trauma symptoms and behavioural problems in children as a result of the ongoing nature of aftershocks (Masten & Osofsky, 2010). This aligns with research on CT and the long-term effects it has on children.

In addition to the direct impact of the earthquakes for children in Canterbury, there was an increase in family harm incidents and violence. Despite New Zealand having one of the highest rates of family violence in the OECD (OECD, 2020). In the weekend following the 2010 earthquake, there was an additional 53 percent increase in family violence callouts to the New Zealand Police (Parkinson, 2011). This aligned with international evidence of increases in the frequency and severity of family violence following natural disasters (Parkinson & Zara, 2013). All the children in this study would have been between the ages of 0-3 during this time and, therefore, could have been exposed to this additional trauma.

The difficulties faced throughout the research process highlight why there may be little research on CT and therapeutic interventions with children. It is important to also take into consideration the multiple traumas that children in Canterbury may have experienced, and the long-term impact these may have on their mental and physical health. The results of this study provide some support for the use of GT with children who have experienced early CT as some negative behaviours were shown to improve pre and post intervention. It is difficult to determine whether these improvements were the result of the GT intervention as there were numerous variables that could not be controlled for (e.g. attendance at school, home-life, other intervention and support being received etc.) However, for those children who did not show improvement, ongoing and more targeted intervention might be needed. This is supported by the notion of neuroplasticity where it is possible that the brain can be rewired, however, it may take repeated positive experiences to strengthen new connections (Perry, 2006). Depending on the length of time a child has experienced their trauma, these neural pathways may need years of strengthening before evidence of change is identified. This is also supported by the tiered approach of Theraplay in which children with more complex needs may require a higher

individualised level approach if the lower and middle tiered interventions such as SC and GT are not successful (Booth & Jernberg, 2009).

Factors Impacting the Results.

The residential setting used for this research helped eliminate potential barriers associated with attendance to the intervention, such as transport. However, as some children were only brought into the residential setting for the GT sessions, this resulted in three children missing several intervention sessions. Although transport options were offered to the families, some children did not want to miss out on other activities at their school or in one child's case, wasn't at school so preferred to stay at home. Cheng and Ray (2016) found using a similar intervention to GT in schools is beneficial due to the access to children and increased attendance rate. The attendance rates for this research study were high for the children within the residential facility and acceptable for the other children. Attendance rates may have been lower if this study was conducted out of a residential or school setting.

The fact that all the facilitators were trained in the GT intervention and had a wide range of experiences, may have had an impact on the children's outcomes. Research has shown a positive association between the effectiveness of Theraplay and the level of training/experience a practitioner had (Hong, 2014). As each facilitator was using the same techniques and responses to the children, this ensured the structure and repetition was able to be utilised to support the children's progress. This finding supports previous research by Wettig et al. (2011) showing that with adequate training, Theraplay can be used in many types of settings such as classrooms, residential facilities and clinic settings. However, it is important to note, that despite being adequately trained, some of the statements on the fidelity checklist were not used all the time which may have also affected some children's results. For example, in session one, five and six, the facilitators did not always structure the transitions between each activity which may have impacted a child's behaviour particularly for this population who need structure to feel safe.

Although the core components were used throughout the intervention, the subtle changes and differences between sessions may have disrupted the structure and what the child expected to happen. For example, children that have experienced CT are more sensitive to change due to the fear of not knowing what will happen next (van der Kolk, 2005). Although the facilitators ensured that the children were informed of the session plan (e.g. what games would be played

first), most activities and time in the sessions were heavily structured to follow the required protocols of Theraplay interventions. If a transition between two games was not clear or structured enough or games were played in a different order than planned, this could have potentially dysregulated the child and decreased their trust in the facilitator. However, while these subtle changes and differences in sessions may have impacted the children and their response to the intervention, it is unlikely that this is the reason for some of the unexpected findings.

Strengths and Limitations

Although the GT session length was flexible, the length of the intervention itself was difficult to adjust due to individual schedules of the practitioners and families. This meant the 10 session intervention was conducted over 2 weeks resulting in a brief but intensive version of GT. GT interventions are generally intended to at least 26 sessions long (Booth & Jernberg, 2009). Therefore, results may have differed if the intervention was longer. When comparing these results to other research, it is important to note the definition of a short intervention. Wettig et al. (2011) state their 'relatively short' intervention, which achieved improvements in behaviour, was 18 sessions long, which is still significantly longer than the current study.

On completion of the GT intervention, the facilitators and researcher discussed the progress that was observed in each children's behaviours and could see the importance of further sessions. This supports previous research on facilitator's perceptions of using Group Play Therapy in schools (Blalock, Lindo, Haiyasoso, & Morman, 2019). General intervention research has shown that interventions in school environments are more effective when implemented over a longer period (Weare & Nind, 2011). Much of the understanding of CT interventions also suggest it may take longer for symptoms to be reduced or progress to be made when working with children that have experienced CT (van der Kolk, 2007). It is suggested that as the neural pathways in the brain were changed by repetitive and prolonged trauma, these pathways need to be replaced with positive experiences that are also repetitive and prolonged. Thus, it is recommended that future GT interventions be administered for a minimum of 26 sessions to align with the standard treatment protocol of Theraplay. It is important to note that the number or type of sessions will differ depending on the individual's availability and needs. However, ongoing and longer interventions beyond the minimum are likely to contribute to stronger positive changes in children's neural pathways.

Although pre and post data from the SDQ were not available for all the children in this study, full data was gathered from the ACP. Although it is not possible to know what caused the regression in child six's positive behaviours, the researcher was informed of external factors in the child's home life that may have impacted their progress. Due to the complex nature of the trauma experienced by these children, the measures used in this study may not have been able to identify other environmental and ecological factors that may have impacted the results at the time of data collection (both pre and post).

Children's total difficulty score was based on parent ratings of children's behaviour. Single informant reports are limited because they only reflect one individual's perceptions of the child's behaviour. In this case, parents are only able to report on their child's behaviours at home. The lack of multiple informants may have impacted the understanding of each child's behaviours, particularly in a range of contexts such as the home, the school, and the residential setting. Goodman (2001) recommends using all three informant versions of the SDQ to provide an accurate assessment of the child. However, for this study, only the parent and teacher versions were appropriate as the child informant version is recommended for children 13+. No participating children were 13 years or over. Teachers were contacted and invited to participate in this study, however, responses were only obtained from two teachers. As a result, teacher reports were excluded from further analyses. Further, two of the participating children were not enrolled in a school at the time of the GT intervention or they had recently started at a new school, thus teacher reports could not be obtained for these children. Children that have experienced CT and have behavioural difficulties are more likely to not attend school or change schools often (Stempel, Cox-Martin, Bronsert, Dickinson, & Allison, 2017).

It would have been interesting to collect data from current and past teachers for each of the children to determine whether there were any discrepancies between their perceptions of the child's behaviour and parent's ratings of their child's behaviour. As the pre-intervention SDQ assesses behaviours in the past six months, a past teacher and new teacher may have experienced three months of interactions with a child, and depending on other factors such as peers, or school location the child's behaviour may have been dramatically different. For the current research, the pre-intervention SDQ data was collected at the beginning of a new school year and thus children had previously had six to eight weeks of holidays. This may also have impacted the child's scores and parents' perceptions of their child's behaviours. This could be

resolved in future research by having a longer baseline period with multiple pre-intervention data collection points. In some circumstances, it may also be possible to use both parents as informants of their child's behaviour, to allow for congruency to be examined between each parent's view of their child's behaviour.

Despite the complexities of gathering information with a population that has experienced trauma, having multiple informants would have allowed the researcher to understand differences in informant reports of behaviour and triangulate the findings to provide a better understanding of the child's behaviours in a range of contexts. Other researchers have noted a lack of all three informant versions of the SDQ was a limitation in their research (Johnson, Hollis, Marlow, Simms, & Wolke, 2014; Riso et al., 2010). The lack of multi-informants appears to be a common limitation when working with participants in various types of research. Considering this limitation is present when working with typically developing children, the changes in schools, teachers and households of children who have experienced CT result in further difficulties when conducting research with this population.

It has been shown that some parents may over or underestimate reports of their child's behaviours (Rhodes et al., 2019). It was found that for a sample of pre-schoolers, both mothers and fathers rated their child's abilities higher than teachers which may suggest that parents wanted their child's abilities to be seen as higher than they were (Morgan, Robinson, & Aldridge, 2002). It was suggested that parents overestimate their child's abilities when completing questionnaires, however, some parents may intentionally underestimate their child's abilities or magnify their difficulties to ensure their child gets the help they need (Morgan et al., 2002). Although it is not possible to assume this was the case for the parents in this study, caution is needed when relying on parent reports. For instance, the organisation (i.e. Stand Children's Services) in which children were recruited for this study requires a certain level of symptoms/concerns to access the service, therefore, some parental bias may be shown. Although all children had returned home for two weeks before the post-data collection phase, caution is also required when analysing data between the children who had stayed in the residential facility during the time of the intervention and the children who were staying at home.

Another limitation of the study is the large age range of children who participated in the GT intervention. As a result of the low numbers of children recruited, an age criteria was not

applied, allowing all middle-age children to participate in the study, which may have contributed to the spread of ages in the participants. Despite this age range between children, the results demonstrate some effectiveness of GT intervention for children between 8 and 13 years, supporting research by Wettig et al. (2011), and the premise that Theraplay is a developmental therapy that can be adapted to meet the needs of children of all ages (Jernberg, 1999). This is particularly important when working with children that have experienced CT in their first three years of life, as it is common that the development of their cognitive and emotional abilities has been delayed (Van der Kolk, Roth, Pelcovitz, Sunday, & Spinazzola, 2005).However, without further pre-measures of the child's abilities, it is difficult to know the child's developmental age which is commonly lower than their chronological age when CT has been experienced, specifically in their developmental years (0-3) (van der Kolk, 2005). With more information, it may have been determined whether the children's developmental ages were similar or not and this information could have been used to match the participants based on their cognitive, emotional, physical and social needs.

Recommendations for future research

Future research with children who have experienced CT should be researched with a flexible timeline. More time throughout each of the research and intervention phases would allow for more participants, a longer intervention period and more diverse data collection methods such as qualitative interviews and observations. It is recommended that future research focus on ensuring participants are recruited, and data collection begins at a time that will show a true representation of children's daily behaviours; for example, during a school term rather than over the school holidays. Using qualitative data such as interviews with teachers and parents may also provide a better understanding of the responses given on the SDQ measure. As the SDQ requires information based on the previous 6 months, it is possible that throughout these 6 months, the behaviours had varied. This approach would ensure that the SDQ answers were an accurate representation of the child's behaviours.

It is also recommended that children are matched for gender and developmental age. Having an equal number of male and female children participate in the intervention may provide the opportunity for more positive social interactions by experiencing activities alongside other children with similar interests. Although a focus on developmental age may not be feasible in some research environments, future research may also find children show more progress when

children in the intervention are matched to one specific developmental age group based on either cognitive, emotional, social or physical needs. If children shared a similar cognitive level, it would be possible to ensure the activities and tasks within the intervention sessions were matched to this level.

In addition to this, the importance of prior and ongoing relationships with children and their families when choosing to research children who have experienced CT should be taken into account. Previous research has found improved clinical outcomes when a positive relationship is evident between the client and therapist (Schmidt et al., 2014; Stratford, Lal, & Meara, 2009). In line with the theory on effective interventions for children that have experienced trauma, to engage a parent/family, it is important to build a trusting relationship through consistent and repetitive positive experiences as often intergenerational trauma may be present (Milot et al., 2014). Although intergenerational trauma was not directly addressed for the parents in this study, this information was obtained by the organisation. Therefore, it may have been more helpful for the facilitators and researcher to have already established rapport with the families before the intervention starting for this trust to be built and maintained.

Despite the participants in the current study having a good rapport with their social workers and the organisation, it was still difficult for the researcher and facilitators to build a trusting relationship with the child and their families when the intervention was explained to them and throughout the intervention. This may have been because the majority of the contact with parents before the intervention starting was done via email or phone. This limited the researcher's ability to demonstrate supportive and sensitive behaviours through emotions and body language thus may have influenced the parent's willingness for their child to participate. After meeting the families for a brief conversation before the intervention begun, they felt much more confident with what the intervention entailed and seemed to relax somewhat around the researcher. However, despite being given various options of how to contact the researcher throughout the research period, the majority still chose to contact their social worker directly when wanting information or feedback in relation to the intervention. It is possible that the parents in this study had previously had a negative experience with other students or researchers and therefore generalise this experience to others or it may have been easier for them to direct all contact to the organisation which their treatments, resources and intervention were coming from.

It was unfortunate that a larger sample size was not acquired for this study. Including a control group and an alternative intervention group would have provided a greater overview of the effectiveness of a GT intervention in improving children's behaviours. The GT intervention would also benefit from qualitative data being gathered from both the participants and facilitators. This could then provide information around the experience of the intervention which may support an individual's willingness to participate in a GT intervention. For example, if on completion of the intervention a child had openly discussed with their family and peers that the intervention was boring or pointless, this may result in other children or families being less willing to try the intervention. Although each child will have differing opinions on the intervention, if there were noticeable trends in the children's view of the intervention, this may result in changes to the way the intervention is delivered by the facilitators. Some children, in particular, pre-adolescents, may also feel more inclined to do something if another child has spoken highly about it rather than an adult. Some of the children in this study fit into the middle childhood-pre-adolescence developmental period where social identity and social importance are important (Coates & Gaensbauer, 2009). These children may focus on positive feedback and look for support from their peers. Studies have shown that children that are encouraged to read and told it is 'cool' by a peer, were more likely to enjoy reading and participate in the activity (Clark, 2016a), therefore if children described GT as fun or great, more children may agree to participate.

A qualitative measure to show children's experiences of GT intervention would have also been beneficial to triangulate with the quantitative data, to allow for a more nuanced understanding of the changes in children's behaviour. By using interviews with the child, further information on how the children were feeling before and after the sessions would be gained and may provide a better understanding on whether mood and other external factors may have influenced the child's behaviours throughout the sessions. Questioning the child about the GT activities would also help provide an understanding of the likes and dislikes of each child. Previous researcher by such as Francis et al. (2017) used qualitative interviews to ascertain facilitators' and teachers' views of children's behaviours before and after a Theraplay intervention. The information gained from these measures allowed the researcher to understand the impact of the intervention from the facilitators and teachers view. This included subtle changes in children's behaviours, relationships between the facilitators and children, and interactions between peers in the classroom setting. Therefore, future research may benefit

from including a similar qualitative component to examine the experiences of the children, parents and teachers as they progress through GT intervention.

Additional quantitative measures such as The Child Behaviour Checklist (Achenbach, 1999), would also allow the identification of more subtle changes in the child's behaviour by providing information on more behaviours and symptoms than what is offered by the SDQ. Although the CBCL contains a more in-depth assessment of different behaviours, the assessment is not free to use and takes considerably longer to complete (i.e. time). Some research has also shown that behaviours related to inattention and hyperactivity were identified better using the SDQ compared to the CBCL (Goodman & Scott, 1999) and internalising and externalising problems were identified by the SDQ and CBCL equally (Goodman & Scott, 1999). However, these studies did not use children that had been exposed to CT and therefore this data may have been based on the most common symptoms measured on both the CBCL and SDQ rather than the subtle behaviours and changes that may be more evident in children with CT. Future research might look to examine the use of the SDQ and CBCL for children with CT to determine whether one is more suitable compared to the other.

Clinical Implications

The results of this study provide some support for the effectiveness of GT, an attachment-based intervention for the reduction of behavioural symptoms children who have experienced CT. The low cost and flexibility of GT allow this intervention to be accessed and provided by many clinical and non-clinical organisations. This research provides support for the feasibility of using GT intervention within a residential facility and with children who have experienced CT. Suggestions have been provided that may strengthen the intervention such as a longer intervention period, a balanced mixture of male and females, a similar age group and the use of qualitative measures to understand the views of children, parents and teachers, throughout the intervention. Thus, GT may be an alternative evidence-based intervention to be used within the New Zealand context to support children with CT. However, it would benefit from additional research.

Based on previous research and the experiences of this research, it is possible that a GT intervention would also be beneficial for children who have experienced negative attachment during their infant years or those who have not developed an attachment with their current

caregiver, such as children who have been adopted. A Theraplay intervention would also be potentially beneficial for children who have been removed from their caregivers or attachment figures (Booth & Jernberg, 2009). In 2018-2019, 1600 children entered government care (Oranga Tamariki, 2019a), thus this may be especially important within New Zealand to assist with disrupted attachment and childhood trauma from these experiences.

Unlike other trauma-focused interventions, GT brings shared enjoyment and positive experiences regardless of the underlying goal of the intervention (Booth & Jernberg, 2009). For instance, some interventions used to respond to trauma (e.g. Trauma-Focused Cognitive Behavioural Therapy) revisit the traumatic situation and experience and have the potential to re-traumatise children. GT, on the other hand, does not focus on the specific traumatic experiences that children have endured. Rather, GT is a relationship-based intervention designed to enhance children's emotional wellbeing. In this sense, GT is not considered a high-stake intervention. Regardless of whether the intervention leads to significant behaviour change, it has the potential to bring joy, learning, and positive wellbeing to children who have experienced CT.

The ability to acknowledge that success can be seen in many ways, is particularly important for facilitators and clinicians to note when implementing GT. Despite all the facilitators within this study having a large amount of knowledge and experience on CT, this knowledge did not eliminate the difficulties that arose from the intervention. The experience of facilitating a GT intervention with children who have experienced CT allowed the researcher and facilitators to extend their knowledge and learn from the experiences to support their understanding of the complexity of trauma. This research taught the facilitators that observations during the activities, as measured on the ACP, provided more in-depth knowledge and reflection about the child's progress than the SDQ. Being attuned to each of the child's developmental ages throughout the intervention was shown to be more important than first thought, in order to be responsive to their needs in the moment. This information from the current research allows for future interventions and research to be adapted based on these clinical experiences. If other clinicians, teachers or parents are trained in, and able to implement a GT intervention, the knowledge gained from their own experiences will enhance their overall knowledge of trauma and potentially be helpful in other environments such as personal or professional relationships.

This intervention and understanding gained by multiple clinicians and the researcher may become particularly important and relevant for many children if a new diagnosis of 'Developmental Trauma' is included in the Diagnostic and Statistical Manual (DSM). Much of the research arguing for this inclusion focuses on the complex effects of trauma in a child's developmental years and proposes attachment-based interventions for the treatment (van der Kolk, 2005).

Conclusion

This study provides greater insight into the effectiveness of a GT intervention with children that have experienced CT in their early developmental years (0-3). The results of this study demonstrate conflicting findings, depending on the assessment used to measure child progress. Facilitator reports collected through the ACP measure demonstrated that children's pro-social behaviours improved, and their negative behaviours declined by the end of the GT intervention. This improvement was identified for all children regardless of the number of GT sessions they attended, except for one child whose behaviours regressed throughout the intervention. Although the SDQ data showed improvements in at least one sub-category for three of the four children, these three children also showed an increase negative behaviour in another subcategory. Overall, the 'Total Difficulties' score was shown to decrease for one child only. As there was no control group for this study, any changes in the children's behaviours may have been the result of other variables not examined in this study. Thus, future research should include a control group to determine the true effectiveness of the GT intervention.

This research also adds new information to the field of Theraplay research showing the feasibility of using GT in New Zealand and with children that have experienced CT. This is an important contribution to national and international literature because to date, to the researcher's knowledge, no research has examined the effectiveness of GT with children who have experienced early CT. This study has also demonstrated some evidence that children who participate in both SC and GT interventions are more likely to experience greater improvement in behaviour compared to completing only GT.

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Appendices

Appendix A – Human Ethics Approval

UNIVERSITY OF CANTERBURY
Te Whare Wānanga o Waitaha
CHRISTCHURCH NEW ZEALAND

HUMAN ETHICS COMMITTEE

Secretary, Rebecca Robinson
Telephone: +64 03 369 4588, Extn 94588
Email: human-ethics@canterbury.ac.nz

Ref: HEC 2018/64 Amendment 1

24 September 2018

Paige Louise Lenton
Health Sciences
UNIVERSITY OF CANTERBURY

Dear Paige

Thank you for your request for an amendment to your research proposal "The Effectiveness of "Group Theraplay" Intervention on Improving Outcomes for Children Who Have a History of Complex Trauma" as outlined in your emails dated 7th and 19th September 2018.

I am pleased to advise that this request has been considered and approved by the Human Ethics Committee.

Yours sincerely

pp. R. Robinson

Professor Jane Maidment
Chair, Human Ethics Committee

Appendix B – Stand Tu Māia Approval

To Whom It May Concern

This is to confirm that Paige Lenton has permission to conduct her research project alongside the Social Worker Team Leader and Therapeutic Care and Education Team Leader both employed at Stand Children's Services Tū Māia Whānau. Permission is also granted to use the Christchurch residential facility for the purpose of a Group Theraplay Intervention.

Ngā mihi
Trevor Batin

Regional Manager
Stand Children's Services
Tū Māia Whānau

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Appendix C – Stand Tu Māia Referral for Services Form

ACCESS CRITERIA INFORMATION
To be completed by the Referral Agent together with the Parent/Caregiver(s).

CHILD AND ADOLESCENT TRAUMA SCREEN

Being "trauma-informed" matters to Stand Tu Maia. The idea behind trauma-informed services is pretty straightforward: When the approach we provide to children and families is informed by a basic knowledge of "what stressful or scary events have happened to them" and how these traumatic experiences and associated stress have impacted on them, many things are likely to turn out better.

Stressful or scary events happen to many children. Below is a list of stressful and scary events that sometimes happen. Mark YES if any of these events have happened to the child to the best of your knowledge. Mark NO if the child has not experienced these events to the best of your knowledge.

Serious natural disaster like a flood, tornado, hurricane, earthquake, or fire.	YES ☐ NO ☐
Serious accident or injury like a car/bike crash, dog bite, sports injury.	YES ☐ NO ☐
Robbed by threat, force or weapon.	YES ☐ NO ☐
Slapped, punched, or beat up in the family/whanau.	YES ☐ NO ☐
Slapped, punched, or beat up by someone not in the family/whanau.	YES ☐ NO ☐
Seeing someone in the family get slapped, punched or beat up.	YES ☐ NO ☐
Seeing someone in the community get slapped, punched or beat up.	YES ☐ NO ☐
Someone older touching his/her private parts when they shouldn't.	YES ☐ NO ☐
Someone forcing or pressuring sex, or when s/he couldn't say no.	YES ☐ NO ☐
Someone close to the child dying suddenly or violently.	YES ☐ NO ☐
Attacked, stabbed, shot at or hurt badly.	YES ☐ NO ☐
Seeing someone attacked, stabbed, shot at, hurt badly or killed.	YES ☐ NO ☐
Stressful or scary medical procedure.	YES ☐ NO ☐
Being around war.	YES ☐ NO ☐
Other stressful or scary event?	YES ☐ NO ☐

ACCESS CRITERIA INFORMATION CONTINUED

Please tick all the areas relevant to the current difficulties this child and family are experiencing:

Child
- ☐ Child has been exposed to family violence and/or maltreatment
- ☐ Child exhibiting alienation and rebelliousness
- ☐ Child displaying anti-social behaviour and hyperactivity
- ☐ Child has difficulty with self-management
- ☐ Child has difficulty with emotional regulation
- ☐ Child associates with peers engaged in at risk behavior
- ☐ Child has any diagnosed conditions, chronic health or disabilities (Please specify in Health Checklist)

Parent / Caregiver
- ☐ Parent/caregiver experiencing difficulties monitoring child
- ☐ Parents/caregivers experiencing difficulties with discipline
- ☐ Parents/caregivers finding difficulty with displaying consistent warmth and affection
- ☐ Parents /caregivers have relationship problems or family history of abuse
- ☐ Parents/caregivers experiencing difficulties with alcohol/drug use
- ☐ Family has experienced recent traumatic event(s) e.g. death of family member, divorce, involvement with crime and/or imprisonment

Family Environment
- ☐ Unsupported sole parent
- ☐ Parents / caregiver without formal qualifications
- ☐ Low income status – unemployment/ low wage or benefit
- ☐ Lack of essential resources – no transport, phone,
- ☐ Unstable and/or unsuitable housing

School
- ☐ Child failing at school/making insufficient progress
- ☐ Child not attached to school – dislikes school, poor attendance
- ☐ Child experiencing peer rejection and/or bullying at school
- ☐ School having difficulties managing child's behavior
- ☐ Child under the influence of/or part of deviant peer group
- ☐ Child has experienced 2 or more changes of school in last twelve months

Community
- ☐ Child and family struggling with socio-economic disadvantage
- ☐ Lack of support services for child and/or family
- ☐ Child and/or family experiencing social/cultural discrimination
- ☐ Family lives in poor housing conditions, have to move frequently
- ☐ Child and family exposed to neighbourhood crime and violence
- ☐ Child and family live in neighbourhood where there is lack of attachment by residents to neighbourhood and other community members

ACCESS CRITERIA INFORMATION CONTINUED

Child and Family Protective Factors
Please tick which (if any) of the 4 protective factors exist for this child and family
Please select whether you consider the **protective factor to be strong or not so strong**

1. Caring and Support **Strong ☐** **Not so strong ☐**
Refers to family bonding and social factors such as strong relationships with other family members, teachers and other significant people who can demonstrate to children positive attitudes and behaviours

2. High expectations **Strong ☐** **Not so strong ☐**
Refers to family beliefs and standards that help the child make the connections between behaviours and consequences

3. Opportunities for participation **Strong ☐** **Not so strong ☐**
Refers to whether the child has strong interests outside the family or strong attachment with confiding adult outside their immediate family

4. Temperament and Behaviour **Strong ☐** **Not so strong ☐**
Refers to the child's individual characteristics such as cognitive skills, strong coping skills, high self-esteem, and temperament

Behaviour and Health Checklist to be completed by parents/caregivers
The following behaviours are sometimes seen in children who have problems at home or at school. Please tick in the box provided those that apply to your child.
Important Note: If you tick yes, please complete the frequency questions

Does your child often:	No	Yes	No. per week	Has your child:	No	Yes	No. of times
Lose his/her temper?				Run away from home?			
Argue with adults?				Run Away from class?			
Defy or refuse adult requests or rules?				Run away from school?			
Deliberately do things to annoy people?				Been stood down from school?			
Blame others for own mistakes?				Broken into someone's house or car?			
Get touchy or easily annoyed by others?				Deliberately destroyed other's property?			
Seem angry and resentful?				Deliberately destroyed their own property?			
Act spitefully or vindictively?				Been physically cruel to animals?			
Swear or use obscene language?				Been physically cruel to people?			
Lie?				Used a weapon in more than one fight?			
Skip school?				Deliberately set fires?			
Initiate physical fights?				Stolen?			
				Displayed inappropriate sexualised behaviour?			

Health Information:

Has the child been diagnosed as having any of the following conditions?

Physical:	Mental	Developmental
☐ Enuresis	☐ ADD / ADHD	☐ Learning disability
☐ Encopresis	☐ Oppositional Defiance Disorder	☐ Intellectual disability
☐ Asthma	☐ Conduct disorder	☐ Sensory processing disorder
☐ Epilepsy	☐ Anxiety disorder	☐ Autism Spectrum Disorder
☐ Hearing problems	☐ Eating disorder	☐ Developmental Trauma Disorder
☐ Vision problems	☐ Mood disorder	☐ Fetal Alcohol Spectrum Disorder
☐ Skin problems	☐ Phobic disorder	☐ Global Development Delay
☐ Diabetes	☐ Post-Traumatic Stress Disorder	
☐ Obesity	☐ Reactive Attachment Disorder	
☐ Under weight		
☐ Child cancer		
☐ Other Please state _____	☐ Other Please state _____	☐ Other Please state _____

Expectations of Stand Children's Services referral:

Child Expectations
Which of the following 5 items best describe what you the child hope to achieve?

- ☐ I hope to feel better about me and my world
- ☐ I hope to make better choices about what I do
- ☐ I hope to be able to concentrate and learn better
- ☐ I hope to have more friends and be a good friend
- ☐ I hope to be kinder and more helpful

Parents/Caregivers Expectations
Which of the following 5 items best describe what you the parent(s)/caregiver(s) hope to achieve?

- ☐ Understand child growth and development, have appropriate expectations of my child's skills and abilities, and a positive view of myself and my child.
- ☐ To not be overwhelmed by my child's demands to be sensitive, patient and communicate with them about their needs and feelings.
- ☐ To manage my child's behaviour and teach my child right from wrong by developing respectful family rules that we all agree to live by.
- ☐ Be well as a parent so I am able to meet the needs of my child. Develop supports and learn how to care for and comfort myself.
- ☐ To support my child to respectfully express their views, cooperate with others, develop problem solving skills and make good choices.

Referral Agency Expectations
Which of the following 5 items best describe what you hope the child and family will achieve?

- ☐ Improved safety of child and family
- ☐ Improved child health and wellbeing
- ☐ Improved parent/caregiver health and wellbeing
- ☐ Development of positive community connections
- ☐ Improved family stability

Appendix D – Strengths and Difficulties Questionnaire

Strengths and Difficulties Questionnaire

For each item, please mark the box for Not True, Somewhat True or Certainly True. It would help us if you answered all items as best you can even if you are not absolutely certain or the item seems daft! Please give your answers on the basis of the child's behaviour over the last six months or this school year.

Child's Name ..... Male/Female

Date of Birth.....

	Not True	Somewhat True	Certainly True
Considerate of other people's feelings	☐	☐	☐
Restless, overactive, cannot stay still for long	☐	☐	☐
Often complains of headaches, stomach-aches or sickness	☐	☐	☐
Shares readily with other children (treats, toys, pencils etc.)	☐	☐	☐
Often has temper tantrums or hot tempers	☐	☐	☐
Rather solitary, tends to play alone	☐	☐	☐
Generally obedient, usually does what adults request	☐	☐	☐
Many worries, often seems worried	☐	☐	☐
Helpful if someone is hurt, upset or feeling ill	☐	☐	☐
Constantly fidgeting or squirming	☐	☐	☐
Has at least one good friend	☐	☐	☐
Often fights with other children or bullies them	☐	☐	☐
Often unhappy, down-hearted or tearful	☐	☐	☐
Generally liked by other children	☐	☐	☐
Easily distracted, concentration wanders	☐	☐	☐
Nervous or clingy in new situations, easily loses confidence	☐	☐	☐
Kind to younger children	☐	☐	☐
Often lies or cheats	☐	☐	☐
Picked on or bullied by other children	☐	☐	☐
Often volunteers to help others (parents, teachers, other children)	☐	☐	☐
Thinks things out before acting	☐	☐	☐
Steals from home, school or elsewhere	☐	☐	☐
Gets on better with adults than with other children	☐	☐	☐
Many fears, easily scared	☐	☐	☐
Sees tasks through to the end, good attention span	☐	☐	☐

Signature ..... Date .....

Parent/Teacher/Other (please specify:)

Thank you very much for your help

Appendix E – Strengths and Difficulties Questionnaire Scoring Cut-offs

	Original 3-band categorisation			Newer 4-band categorisation			
	Normal	Borderline	Abnormal	Close to average	Slightly raised (/slightly lowered)	High (/Low)	Very high (very low)
Parent completed SDQ							
Total difficulties score	0-13	14-16	17-40	0-13	14-16	17-19	20-40
Emotional problems score	0-3	4	5-10	0-3	4	5-6	7-10
Conduct problems score	0-2	3	4-10	0-2	3	4-5	6-10
Hyperactivity score	0-5	6	7-10	0-5	6-7	8	9-10
Peer problems score	0-2	3	4-10	0-2	3	4	5-10
Prosocial score	6-10	5	0-4	8-10	7	6	0-5
Impact score	0	1	2-10	0	1	2	3-10
Teacher completed SDQ							
Total difficulties score	0-11	12-15	16-40	0-11	12-15	16-18	19-40
Emotional problems score	0-4	5	6-10	0-3	4	5	6-10
Conduct problems score	0-2	3	4-10	0-2	3	4	5-10
Hyperactivity score	0-5	6	7-10	0-5	6-7	8	9-10
Peer problems score	0-3	4	5-10	0-2	3-4	5	6-10
Prosocial score	6-10	5	0-4	6-10	5	4	0-3
Impact score	0	1	2-6	0	1	2	3-6
Self-completed SDQ							
Total difficulties score	0-15	16-19	20-40	0-14	15-17	18-19	20-40
Emotional problems score	0-5	6	7-10	0-4	5	6	7-10
Conduct problems score	0-3	4	5-10	0-3	4	5	6-10
Hyperactivity score	0-5	6	7-10	0-5	6	7	8-10
Peer problems score	0-3	4-5	6-10	0-2	3	4	5-10
Prosocial score	6-10	5	0-4	7-10	6	5	0-4
Impact score	0	1	2-10	0	1	2	3-10

Appendix F – Group Theraplay Session Outline

	Activity	Theraplay Dimension	Aim of session	Materials Needed
Session 1	Pass a smile/funny face/hello Check-ups/Caring for Hurts/Lotion or Powdering Karate Chop Fish & Chips Cotton Ball Hockey Sticker Match Food Share	Engagement Nurture Challenge Structure Structure Engagement Nurture	- Introductions - Ensure felt safety - Build relationship - Develop understanding of individual needs	No materials needed Moisturiser/Hand cream Toilet Paper No materials needed Cotton Balls Stickers Chips/Other Food
Session 2	Pass a blink/wink/hello Check-ups/Caring for Hurts/Lotion or Powdering Balloon Bop Deep Breathing Cotton ball carry Food Share	Engagement Nurture Challenge Transition Challenge Nurture	- Include more challenge to allow children to feel mastery	No materials needed Moisturiser/Hand cream Balloons No materials needed Cotton Balls & Straws Chips/Other Food
Session 3	Pass a squeeze Check-ups/Caring for Hurts/Lotion or Powdering Imaginary Toss Bubble Pop Jelly on a Plate La La Magnets Food Share	Nurture/Engagement Nurture Engagement Structure Engagement Engagement Nurture	- Attempt to gain more engagement from the children - Focus on taking turns	No materials needed Moisturiser/Hand cream No materials needed Bubbles No materials needed No materials needed Chips/Other Food
Session 4	Pass a movement Group Check-up Fish & Chips Balloon Bop Big bag of balloons Jelly on a plate Food Share	Engagement Nurture Structure Challenge Challenge Engagement Nurture		No materials needed No materials needed No materials needed Balloons Balloons & Bin Bag No materials needed Chips/Other Food
Session 5	Pass a funny face/move Check-ups/Caring for Hurts/Lotion or Powdering Cooperative thumb catch Beans Deep Breathing Cotton Ball Walk Food Share	Engagement Nurture Challenge Engagement/Structure Transition Challenge Nurture		No materials needed Moisturiser/Hand cream No materials needed No materials needed No materials needed Cotton balls Chips/Other food
Session 6	Pass a thumbs up Lion, Meercat, Giraffe Check-ups/Caring for Hurts/Lotion or Powdering Cotton ball or feather guess Tap Tap Pass Balloon Balance Food Share	Engagement Structure/Engagement Nurture Nurture Challenge Challenge Nurture	- Introduce more nurture activities	No materials needed No materials needed Moisturiser/Hand cream Cotton balls & Feathers Plastic cup Balloons Chips/Other food
Session 7	Pass a soft toy Beep and Honk Variation Check-ups/Caring for Hurts/Lotion or Powdering Zoom, Zip, Splash Back Tracing Balloon balance Deep Breathing Hokey Pokey Food Share	Engagement Engagement Nurture Structure Nurture Challenge Transition Structure/Engagement Nurture		Soft toy No materials needed Moisturiser/Hand cream No materials needed No Materials needed Balloons No materials needed No materials needed Chips/Other food
Session 8	Group Check-up Hamburger Bubble Pop Pass a squeeze Cotton Ball carry Weather Report Food Share	Nurture Nurture Structure Nurture Challenge Nurture Nurture		No materials needed Cushions (Big & Small) Bubbles No materials needed Cotton Balls No materials needed Chips/Other food
Session 9	Pass a move Check-ins Jelly on a Plate La La Magnet Cotton Ball Hockey People Hamburger Food Share	Engagement Nurture Engagement Nurture Structure Nurture Nurture		No materials needed Moisturiser/Hand cream No materials needed No materials needed Cotton Balls Cushions (Big & Small) Chips/Other food
Session 10	Pass a smile/movement Balloon Balance Balloon Tennis Big bag of Balloons Fish & Chips Check-ins Hamburger Food Share Ending Ceremony	Engagement Challenge Challenge Challenge Structure Nurture Nurture Nurture	- Include challenge and nurture activities to ensure end of session is positive. - Children feel a sense of mastery and belonging	No materials needed Balloons Balloons Balloons & Bin Bag No materials needed Moisturiser/Hand cream Cushions (Big & Small) Chips/Other food Badge/Other small gift

Appendix G – Theraplay Activity Definitions

Check-ups (Engagement)
Check body parts, such as nose, chin, ears, cheeks, fingers, toes, knees to see if they are warm or cold, hard or soft, wiggly or quiet, and so on. Count freckles, toes, fingers, and knuckles. Check strong muscles and high jumps.

Caring for Hurts (Nurture)
As part of the general check-up for the child's special qualities, notice and care for scratches, bruises, hurts, or 'boo-boos'. Put lotion on or around the hurt, touch with cotton ball, or blow a kill. Check for healing in the next session. Do not announce 'Let's see how many hurts you have'.

Lotion of Powdering (Nurture)
Put lotion or powder on child's arms, hands, legs or feet. You can sing a personalised song as you do this, 'Oh lotion, oh lotion on Sarah's feet / It feels so good, it feels so grand.' Attend to the child's sensory needs by using firm pressure or choosing powder rather than lotion for the child who has tactile sensitivity.

Passing Funny Faces Variations (Engagement)
Each person in the circle makes a funny face/wink/hello/wave which is passed in turn to the next person around the circle. Each has a turn to create a variation.

Karate Chop (Challenge)
Hold a length of toilet paper or paper streamer in front of the child and have them chop it in half when you give a signal.

Fish and Chips (Structure)
Adult says fish and chips in a funny voice or rhythm, child repeats this in the same voice or rhythm. Can reverse and have child say fish and chips and Adult match.

Cotton Ball Hockey (Structure)
Lie on the floor on your tummies (or sit with a pillow between you). Blow cotton balls back and forth trying to get the cotton ball under your partners arms or off the edge of the pillow. Or you can cooperate, and both blow hard enough to keep the ball in the middle. You can make it less competitive but increase the complexity by specifying how many blows can be used to get the ball across the pillow – one blow is easy, but two or three are harder to control.

Sticker Match (Engagement)
Put a colourful sticker on the child and have the child put stickers on you in just the same place until both are decorated in the same way. After the stickers are applied, child and adult touch matching stickers together, for example, nose to nose, elbow to elbow, before removing them.

Food Share (Nurture)
Have a small snack and drink available for all sessions; never insist that a child eat. Take child on lap or face seated child. Feed the child, listening for crunches, noticing whether the child likes the snack and when he is ready for more. Encourage eye contact. You can add to the interest of the feeding by having two or three kinds of snack – raisins, nuts, crackers.

Have the child close his eyes and guess which snack it is. If the child refuses to let you feed him at first, allow him to feed himself but make yourself part of the activity, for example, by commenting on how long he chews, how loud his chews are, or what you notice about him that lets you know he likes the food.

Balloon Bop (Challenge)
When there are more people this activity can become quite exciting. You can organise it by taking turns around the circle or by counting how many times the group can keep the balloon in the air before it hits the ground.

Deep Breathing (Transition)
Members sit still and place their hand on their stomach. Breathe in through the nose for three counts, feeling the stomach expand and breath out through your mouth for four counts feeling the air leave the stomach. This is repeated several times

Cotton Ball Carry with Straws (Challenge)
With long, fat straws and cotton balls, each child takes a turn picking up a cotton ball with a straw (place straw on cotton ball and suck on straw, creating a vacuum that holds cotton ball) and deposits it in a designated spot. Can be played on a table top with regular length straws but the long ones are more fun. Can substitute feathers for cotton balls.

Pass a Squeeze or Touch Around (Nurture)
Pass a squeeze, a gentle touch, a dab of lotion, or a fresh touch of powder from person to person around the circle.

Imaginary Toss (Engagement)
Stand in a circle. Members take turns, call out a name and pretend to toss an item to that person (various kinds of balls but also, a slippery fish, an egg, an ice cream cone, etc.). The catcher must "catch" the way you would catch that item.

Bubble Pop (Structure)
Blow bubbles towards children and let the children pop as many bubbles as they can. Instructions can be given on how to pop (e.g. Pop with your left hand). Children may also have a turn at blowing the bubbles.

Jelly on a plate (Engagement)
Similar to 'peanut butter and jelly/fish and chips' members take turns saying 'jelly on a plate, jelly on a plate, wibble wobble wibble wobble, jelly on a plate' in funny voices/rhythm. All other members join in.

La La Magnets (Engagement)
Stand in a circle. The facilitator starts by choosing a body part e.g. Elbow, and says 'la la elbow' at which point all members must join together using this body part until another member has chosen another body part and said the phrase.

Big bag of Balloons (Challenge)
Fill up a large plastic garbage bag with inflated balloons and tie it off. This becomes a giant balloon to bat back and forth.

Cooperative Thumb Catch (Challenge)

Stand in a circle. Members use their right hand to show a thumbs up and use their left hands palm down on the top of the thumb of the member to the left. Each members tries to catch their neighbours thumb whilst moving their own thumb away.

Beans (Engagement/Structure)
Members carry out the appropriate actions when the facilitator lists various commands. E.g. jumping beans = jump around the room, runner bean = run around the room. Children may also choose a type of bean to act out.

Pick up Cotton Balls or Other Small Objects With Your Toes (Cotton ball walk) (Challenge)
Start with one or two and increase the number. Once the cotton balls have been picked up, you can add tossing them across the room. You can make this more challenging by having the child hop around the room with the cotton ball between his toes.

Cotton Ball or Feather Guess (Nurture)
First demonstrate by touching the child's hand with a cotton ball and a feather; ask the child to notice the difference between the two sensations. Then have the child close her eyes and tell where you have touched her and whether you did it with a cotton ball or a feather. This adds challenge to a nurturing activity. If the child is not comfortable closing her eyes, have her look away.

Tap Tap Pass (Challenge)
Each member has a cup in front of them. Members tap their cup on the ground twice in front of them before placing this in front of the person to their right. The rhythm and pace is maintained by saying 'tap, tap, pass' together. The facilitator may choose to alter the pace to create more challenge.

Balloon balance (Challenge)
Hold a balloon between you and the child (for example, between foreheads, shoulders, elbows, or hips) and move across the room without dropping or popping the balloon. See if you can do this without using hands.

Pass a Soft Toy (Engagement)
Similar to pass a squeeze, pass a soft toy from person to person around the circle. Notice the texture and sound (if applicable) the toy makes.

Beep and Honk Variation (Engagement)
Make a special noise when you touch a specific face or body part, for example, elephant trumpeting when you touch a knee. Try to remember which noise goes with the part when you do a series of touches.

Zoom-Erk-Splash (Structure)
Everyone sits or stands in a circle. The word 'zoom' is passed around the circle quickly. When one person stops the action by saying 'erk', the 'zoom' reverses and is sent back the way it came. When the zoom-erk gets stuck in one part of the circle, the person receiving the erk puts his hands together in a diving movement and points his hands to someone across the circle, saying 'splash'. The person splashed passes a zoom to the person next to her.

Back Tracing
Take it in turns drawing shapes/letters on each other's back. Each have to guess what the drawing was.

Hokey Pokey (Structure/Engagement)
Using the Hokey pokey song, children sing along and/or follow the instructions and complete the movements.

Hamburger (Nurture)
Children lie on a cushion/blanket (hamburger bun). The adults put various 'toppings' (blankets/cushions) on the child and push gently. The child can try and remember which order the 'toppings went' whilst being gently grounded by the weighted touch.

Weather Report (Nurture)
Everyone in the circle turns to the right and puts his hands on the back of the person in front of him. The leader describes the weather and each person rubs the back of the next person to match the weather. For example, it's a warm sunny day: make a large warm circle. The wind is beginning to blow: swoop hands lightly across the back making a swishing noise. Thunder: use the sides of your hands to pound gently on the back. Rain: make light finger taps. Lightning: make a big zigzag across the back.

Balloon Tennis (Challenge)
Keep balloon in the air using specified body parts; for example, heads, hands, no hands, shoulders. If you choose feet, everyone lies on the floor and keeps the balloon in the air by kicking it gently. To create more structure and focus, choose a goal for how long you can keep it in the air, for example 'Let's see if we can count to twenty'

Lion, Meercat, Giraffe
There are three things that the participants can choose from, each signified by different movements/shapes. The facilitator counts to three and on three, all participants commit to one of the three-character types, lion, meercat or giraffe. Keep repeating the cycle of 1-2-3 until everyone does the same creature.

Appendix H – Assessment of Child Progress Measure

The Theraplay Institute
1840 Oak Avenue Suite 320
Evanston, IL 60201 USA

Tel. 847-256-7334
Fax: 847-256-7330
www.theraplay.org

Assessment of Child's Progress in Theraplay®

Group:_____ Therapist:_____

Child:_____ Date:_____

Positive Behaviors	Never		Sometimes		Frequently
Establishes eye contact	1	2	3	4	5
Touches others appropriately	1	2	3	4	5
Is caring toward others	1	2	3	4	5
Accepts nurturing when appropriately given	1	2	3	4	5
Can be comforted by parent or appropriate adult when in distress	1	2	3	4	5
When child needs help, comes to or accepts help from appropriate adult(s)					
Is appropriately assertive	1	2	3	4	5
a. with peers	1	2	3	4	5
b. with adults	1	2	3	4	5
Plays cooperatively with peers for reasonable length of time (according to child's age)	1	2	3	4	5
Takes turns willingly during cooperative play with peers	1	2	3	4	5
TOTAL /50					

Negative Behaviors	Never		Sometimes		Frequently
Is overly competitive with peers	5	4	3	2	1
Attempts to "boss" adults/peers	5	4	3	2	1
Is physically aggressive with peers	5	4	3	2	1
Is verbally aggressive with peers	5	4	3	2	1
Child withdraws from group	5	4	3	2	1
TOTAL /25					

Strengths_____

The Theraplay Institute
1840 Oak Avenue Suite 320
Evanston, IL 60201 USA

Tel. 847-256-7334
Fax: 847-256-7330
www.theraplay.org

Areas of Development_____

Additional Comments/Concerns_____

Appendix I – Group Theraplay Fidelity Checklist

THE Theraplay® INSTITUTE
Building Better Relationships

Fidelity Checklist for Group Theraplay®

Group Date: Completed by:
Group Leader(s):

Ratings: **A**= Always, **S**=Sometimes. **N**=Never

Group Theraplay Components	**A/S/N**
Leader provides individual welcome and acknowledgement of each participant	
Leader reviews group rules	
Adults provide individual nurturing check-up for each child	
Games and activities are cooperative	
Games and activities are playful	
Games and activities are selected to support the 4 dimensions of S/E/N/C	
Playgroup includes 3 activities that practice partner or whole group turn-taking	
Playgroup includes food share activity or replacement nurture activity	
Leader provides closing song or activity	
Leader plans for/structures the transitions **between** activities	
Leader transitions children **out of group** and into next activity	
Does the group plan and/or execution/implementation match the therapeutic group goals/objectives of the group?	
Group Theraplay Characteristics	
Leader chooses/structures the activities	
Games/activities include all participants	
All attending adults actively play in the group	
Adults attempt to keep children engaged in games/activities (*if children leave the group they are invited to rejoin, children's attention is directed toward the activity, etc.)*	
Games/activities allow participant turn-taking	
Group includes appropriate challenge activity	
Adults establish eye contact with children	
Adults offer nurturing (*hold hands, pat backs, touch*) when appropriate to activity	
Leader stops game/activity if child appears hurt, uncomfortable or expresses distress	
Adults attend to child if child appears hurt, uncomfortable or expresses distress	
Leader modifies game or allows child to leave group if child appears hurt, uncomfortable or expresses distress	
Adults assist children as appropriate to ensure that children can participate in game/activity	
Children appear to have fun (*smile, laugh, etc.*)	
Adults appear to have fun (*smile, laugh, etc.*)	
Leader provides opportunity for interactions between adults and children as well as between peers	

Comments:

Revised 6.21.16

Appendix J – Parent Information and Consent Form

Telephone: +64 21 0689580
Email: paige.lenton@pg.canterbury.ac.nz
19/09/2018

The effectiveness of a Group Theraplay Intervention on improving outcomes for children with a history of Trauma
Information Sheet for parents/caregivers

My name is Paige Lenton and I am currently completing my ~~Master's Degree~~ in Child & Family Psychology at the University of Canterbury.

In this study I am interested in looking at the effectiveness of a brief Group Theraplay intervention with children that have experienced trauma in their first 3 years of life. Group Theraplay is an attachment-based intervention that uses play based activities to engage children and build relationships. The activities and games that are used will be able to be enjoyed by all ages ensuring that no child finds anything too difficult. Theraplay uses a therapeutic approach which aligns with Stands values and interventions. The study will be run alongside any Stand interventions you may already be receiving. These interventions will be kept separate.

Your child will be assigned to one of two groups, one of which will be Group Theraplay and the other a free play group. Should your child be allocated to the free play group they will be able to participate in the Group Theraplay intervention at a later date. The groups will have 8 children each and will run over 10 sessions over 4-5 weeks. The sessions will take place during regular school hours.

Should your child become upset or not wish to participate in an activity this will be addressed with the view to re-engage them however at no time will they be forced to participate in the activities. The facilitators Petria Thoresen and Maria Lui are experienced certified Theraplay Groups Practitioners. The lead researcher Paige Lenton, and Social Worker Abby McCormack will check in with your child regularly and will be able to identify and respond to any issues if your child is unhappy/uncomfortable.

I aim to see if there are changes in children's behaviours and emotions as a result of a Group Theraplay intervention. This will be measured with a questionnaire prior to the group beginning on 06 November 2018 and four to five weeks following the conclusion of the group. Completion of the questionnaire will take between 30 to 60 minutes. The questionnaire is the Strengths and Difficulties Questionnaire (SDQ) which assesses your child's behaviours and capabilities relating to their relationships, how well they handle their emotions, what their attention to situations is and their actions. Your child's teacher will also be asked to complete a Strengths and Difficulties Questionnaire (SDQ) before and after the intervention. You can request to access the SDQ results summary by contacting the researcher, Paige Lenton. You will be provided with the results at the completion of the study.

In order to gain a better understanding of the effectiveness of the intervention, individual differences may be investigated. This would require the researcher having information relating to personal information of your child such as age, gender, or whether they already have a diagnosis of any kind. Although this information has already been collected by Stand, this will not be disclosed to the researcher without your consent. It is not a requirement to disclose this information to the researcher and therefore can be kept confidential. If you are happy for the researcher, Paige Lenton to receive information from Stand about your child's diagnosis, please indicate this on the consent form.

Participation is voluntary, and you have the right to withdraw at any stage without penalty. You may ask for your data to be returned to you or destroyed at any point. If you withdraw, I will remove any information relating to you.

Your child's participation in this study is also voluntary and they can choose to withdraw from participation at any given time. Although you have provided consent for your child, your child's assent will also be sought prior to the intervention commencing. If you have provided consent for your child and they choose not to participate in the intervention, no further information will be collected from you and your child will not receive the intervention. Group Theraplay has been implemented across diverse cultures including Māori however the researcher will seek your advice on any areas of cultural concern.

The purpose of the study is to determine whether the intervention is effective with this group of children so there is a possibility that it will not be successful. The intervention has however been chosen based on successful use with a variety of children.

The results of the project may be published, but you may be assured of the complete confidentiality of data gathered in this investigation: your identity will not be made public without your prior consent. To ensure anonymity and confidentiality, pseudonyms will be used if referring to any participants outside the research study.

Only the researcher, the primary supervisor and associate supervisor will have access to the data and all data will be stored in a locked filing cabinet or password protected computer. Any raw data will be kept for 5 years and then destroyed. A thesis is a public document and will be available through the UC Library.

Please indicate to the researcher on the consent form if you would like to receive a copy of the summary of results of the project.

The project is being carried out as a requirement for a Master's degree in Child & Family Psychology by Paige Lenton under the primary supervision of Cara Swit and associate supervision of Petria Thoresen who can be contacted at cara.swit@canterbury.ac.nz or petria.thoresen@standforchildren.org.nz. They will be pleased to discuss any concerns you may have about participation in the project.

This project has been reviewed and approved by the University of Canterbury Human Ethics Committee, and participants should address any complaints to The Chair, Human Ethics Committee, University of Canterbury, Private Bag 4800, Christchurch (human-ethics@canterbury.ac.nz).

If you agree to participate in this study, you are asked to complete the consent form and return it to Paige Lenton. This can be returned via email or in the prepaid envelope supplied to you.

Telephone: +64 21 068 9580
Email: paige.lenton@pg.canterbury.ac.nz

The effectiveness of a Group Theraplay intervention on reducing outcomes related to trauma
Consent Form for parents/caregivers

- ☐ I have been given a full explanation of this project and have had the opportunity to ask questions.
- ☐ I understand what is required of me if I agree to take part in the research.
- ☐ I understand that my child has been identified by Abby McCormack and give consent for relevant information relating to my child's personal information to be disclosed to the researcher.
- ☐ I understand that participation is voluntary, and I may withdraw at any time without penalty. Withdrawal of participation will also include the withdrawal of any information I have provided should this remain practically achievable.
- ☐ I understand that Māori participants will be provided with the opportunity to seek input from Māori (through internal or external organizations) in relation to the design and delivery of the intervention.
- ☐ I understand that any information or opinions I provide will be kept confidential to the researcher and that any published or reported results will not identify the participants or their institution. I understand that a thesis is a public document and will be available through the UC Library.
- ☐ I understand that all data collected for the study will be kept in locked and secure facilities and/or in password protected electronic form and will be destroyed after five years.
- ☐ I understand that if requested, the researcher will disclose the SDQ scores from the teacher reports to me.
- ☐ I am aware of the potential stress that may be associated with taking part in this research and that my child will be attended to if needed and will not be forced to take part in activities.
- ☐ I understand that I can contact the researcher Paige Lenton on paige.lenton@pg.canterbury.ac.nz or supervisor Cara Swit on cara.swit@canterbury.ac.nz for further information. If I have any complaints, I can contact the Chair of the University of Canterbury Human Ethics Committee, Private Bag 4800, Christchurch (human-ethics@canterbury.ac.nz)
- ☐ By signing below, I agree to participate in this research project.

Name:_____ Signed:_____ Date:_____

If you wish to receive a summary of the results, please provide your contact details below:

Email: _____

Address: _____

_____

Appendix K – Child Information and Assent Form

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01/08/2018

UNIVERSITY OF CANTERBURY
Te Whare Wānanga o Waitaha
CHRISTCHURCH NEW ZEALAND

Group play sessions with fun activities and games
Child Information Sheet

My name is Paige Lenton and I am doing some research as part of my University studies. Your parents have given you permission to participate in this research.
I want to see if playing games and doing fun activities with other children and adults makes you act differently to when you weren't playing games and doing fun activities.

Some of these activities and games you will be asked to do will look a bit like this:

Playing Catch ←

Making Handshakes →

← Tug of War

You do not have to do any of the activities or be part of the research if you do not want to. You can talk to Paige at any time if you have any worries or problems.

Appendix L – Strengths and Difficulties Scoring information

Scoring the Strengths & Difficulties Questionnaire for age 4-17 or 18+

The 25 items in the SDQ comprise 5 scales of 5 items each. It is usually easiest to score all 5 scales first before working out the total difficulties score. 'Somewhat True' is always scored as 1, but the scoring of 'Not True' and 'Certainly True' varies with the item, as shown below scale by scale. For each of the 5 scales the score can range from 0 to 10 if all items were completed. These scores can be scaled up pro-rata if at least 3 items were completed, e.g. a score of 4 based on 3 completed items can be scaled up to a score of 7 (6.67 rounded up) for 5 items.

Note that the items listed below are for 4-17-year-olds, but the scoring instructions are identical for the similarly-worded '18+' SDQ

Table 1: Scoring symptom scores on the SDQ for 4-17 year olds

	Not True	Somewhat True	Certainly True
Emotional problems scale			
ITEM 3: Often complains of headaches… *(I get a lot of headaches…)*	0	1	**2**
ITEM 8: Many worries… (*I worry a lot)*	0	1	**2**
ITEM 13: Often unhappy, downhearted… (*I am often unhappy….)*	0	1	**2**
ITEM 16: Nervous or clingy in new situations… (*I am nervous in new situations…)*	0	1	**2**
ITEM 24: Many fears, easily scared *(I have many fears…)*	0	1	**2**
Conduct problems Scale			
ITEM 5: Often has temper tantrums or hot tempers (*I get very angry)*	0	1	**2**
ITEM 7: Generally obedient… *(I usually do as I am told)*	**2**	1	0
ITEM 12: Often fights with other children… *(I fight a lot)*	0	1	**2**
ITEM 18: Often lies or cheats *(I am often accused of lying or cheating)*	0	1	**2**
ITEM 22: Steals from home, school or elsewhere *(I take things that are not mine)*	0	1	**2**
Hyperactivity scale			
ITEM 2: Restless, overactive… *(I am restless…)*	0	1	**2**
ITEM 10: Constantly fidgeting or squirming *(I am constantly fidgeting….)*	0	1	**2**
ITEM 15: Easily distracted, concentration wanders *(I am easily distracted)*	0	1	**2**
ITEM 21: Thinks things out before acting *(I think before I do things)*	**2**	1	0
ITEM 25: Sees tasks through to the end… *(I finish the work I am doing)*	**2**	1	0
Peer problems scale			
ITEM 6: Rather solitary, tends to play alone *(I am usually on my own)*	0	1	**2**
ITEM 11: Has at least one good friend *(I have one goof friend or more)*	**2**	1	0
ITEM 14: Generally liked by other children *(Other people my age generally like me)*	**2**	1	0
ITEM 19: Picked on or bullied by other children… *(Other children or young people pick on me)*	0	1	**2**
ITEM 23: Gets on better with adults than with other children *(I get on better with adults than with people my age)*	0	1	**2**
Prosocial scale			
ITEM 1: Considerate of other people's feelings *(I try to be nice to other people)*	0	1	**2**
ITEM 4: Shares readily with other children… *(I usually share with others)*	0	1	**2**
ITEM 9: Helpful if someone is hurt… *(I am helpful is someone is hurt…)*	0	1	**2**
ITEM 17: Kind to younger children *(I am kind to younger children)*	0	1	**2**
ITEM 20: Often volunteers to help others… *(I often volunteer to help others)*	0	1	**2**

Appendix M – Strengths and Difficulties Scoring Overlay

SDQ SCORING 1

SCORING EMOTIONAL SYMPTOMS